RECIPROCITY BETWEEN INDIVIDUAL DIFFERENCES AND THE SOCIAL ENVIRONMENT: EVIDENCE LINKING PERSONALITY WITH RELIGION

By

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INTRODUCTION

One of the founding fathers of sociology, Emile Durkheim, encourages sociologists to examine social facts sui generis, that is, explain social facts by reference exclusively to preceding social facts. This stance was an attempt to distinguish by juxtaposition the sociological paradigm from paradigms in psychology and other disciplines. Durkheim maintained this stance in *Elementary Forms of Religious Life* ([1912] 1965) when he defined religion as: "…a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden–beliefs and practices which unite into one single moral community called a Church, all those who adhere to them" (Durkheim [1912] 1965:62). He was quick to point out in this conceptualization the inherently social nature of religion. In other words, Durkheim ([1912] 1965) discussed religion as being primarily a social institution; this social institution works to provide a mechanism of social cohesion by binding people together in a single community. More specifically, religion was a construction from the social environment in which individuals live (Durkheim [1912] 1965).

Durkheim's view of religion provides an important pillar for building the sociological study of religion. However, religion's impact has not been fully specified in sociology because Durkheim's approach to religion, by its structure, eliminates certain variables as potential correlates of religion. The eliminated variables are those deemed to be not social facts. Disciplinary insularity is not a problem endemic to sociology. Most disciplines have non-overlapping and narrow interests in religion limiting the scholarship that is produced, scholarship that might draw connections across disciplines allowing researchers to better specify the significance of religion. Durability of such disciplinary insularity leaves much ground left to cover regarding religion and its correlates.

Few empirical studies, in fact, have treated religion as a dependent variable (D'Onofrio et al. 1999; Francis 1991; Saroglou 2002; Taylor and MacDonald 1999). The existing studies that have examined religion as a dependent variable have been primarily interested in correlates such as socio-economic status, age, race, and/or gender (D'Onofrio et al. 1999). I argue that such correlates, while important, are not alone in examining variation in religion. In fact, recent studies in psychology suggest that personality is a neglected correlate of religion. Sociologists have been reluctant to specify how personality, which conceptually belongs seemingly to psychologists, might influence religion. Yet, research in psychology suggests that variation in religion can be partially attributed to personality. However, because sociologists and psychologists have non-overlapping and narrow goals when studying religion, this has been an area of research that has been somewhat neglected in studies of religion. Although personality is a variable conceptually owned by psychologists, sociologists and psychologists both would learn much about the impact of the social environment on the individual (House 1977) and the relationship between personality and social structure, by examining personality as a predictor of religion.

Therefore, the purpose of the present study is to provide a thorough investigation of the relationship between personality and religion using a large, nationally representative longitudinal sample. The investigation is guided by a sociological perspective less hindered by disciplinary insularity. This perspective, unlike the one advocated by Durkheim and many sociologists, allows for the interplay of sociological and psychological variables. It suggests that an individual's social environment influences the individual and the social environment, in turn, is influenced by the individual (House 1977). I argue that personality, a neglected psychological

correlate of religion, is important to the sociological study of religion because it links individual differences to the social environment in a novel way.

Analyses of data from Midlife in the United States (MIDUS) study confirm strong links between personality and religion. Further analyses show that prior religion (i.e., religion at Wave I) predicts later changes in personality (i.e., personality at Wave II). This suggests that the social environment is crucial to the relationship between personality and religion. The Discussion section addresses implications for this sociological study of religion and invites sociologists to regularly consider personality, despite claims of concept ownership among psychologists. I also call for an interdisciplinary approach (i.e., sociological social psychology, House 1977) in future studies of personality and religion in order to better understand and specify these relationships.

THE NATURE OF PERSONALITY

Publications linking personality and religion have appeared largely in psychology journals. This may be the case because Eysenck (1970), a psychologist, was one of the first to identify separate and reliable personality traits. He suggested that exploratory factor analysis provided evidence for three independent personality traits: 1) psychoticism, 2) extraversion, and 3) neuroticism. Characteristics of psychoticism included dominance-leadership, optimal arousal (i.e., sensation seeking), dominance-submission, and lack of a superego. Characteristics of extraversion included sociability, frivolity, impulsiveness, general activity, social conversation, overt sexuality, and superego. Characteristics of neuroticism included frequent mood swings, feelings of inferiority, poor emotional adjustment, lack of social responsibility, sensitivity to trust, suspicion, lack of persistence, social shyness, and hypochondria (Eysenck 1970).

Eysenck's (1970) three-trait model was the dominant model of personality until the early 1990s. In the mid-1990s, researchers identified additional personality traits, as well as determined through factor analytic research that psychoticism was not a distinct personality trait. The new model proposed and verified was the five-factor model of personality. The five-factor model argued that there were five independent and uncorrelated personality traits: 1) openness, 2) conscientiousness, 3) extraversion, 4) agreeableness, and 5) neuroticism (see Digman 1992; Goldberg 1990; Saucier and Goldberg 1996). Since the late 1990s, the five-factor model dominated in studies of personality (Digman 1992), including those regarding the relationship between personality and religion (Saroglou 2002).

The five-factor model has been verified across many different studies of personality and it is widely accepted that the included five personality traits account for most, if not all, of the variability in individual personality (Digman 1992; Goldberg 1992; Taylor and MacDonald 1999). Supporters of the five-factor model also assert that these five personality traits tap into basic human tendencies and are, therefore, separate from individual behaviors (Johnson and Krueger 2004; McCrae and Costa 1999). As such, the personality traits in the five-factor model are considered to be inherent in individual psychology and, thus, are neither socially nor individually malleable (D'Onofrio et al. 1999; McCrae and Costa 1999). As psychologists have employed personality in their research models, their analyses of the relative impact of the genetic and social environment on personality has suggested that personality traits are influenced substantially by genetics, but influenced little by the social environment (Digman 1992; Roccas et al. 2002). Further, most studies show personality traits to remain stable as people age; only small and insignificant changes in personality have been reported in empirical research. In essence, much of the psychological literature suggests that personality is heritable, unchanging,

and impervious to influence from the social environment (Digman 1992; Johnson and Krueger 2004; Roccas et al. 2002).

There is some disagreement regarding what each dimension of personality means (Goldberg 1992; McCrae and John 1992). This is mainly because different psychological studies have emphasized different dimensions that compose a particular personality trait (Digman 1992). Nonetheless, some generalizations can be made. In terms of the five-factor model, individuals who score high on the personality trait openness tend to be intellectual, imaginative, and open-minded. They proactively seek new experiences and are not conventional or down-to-earth. These individuals often exhibit autonomy and universalism in their daily actions. Characteristics of conscientiousness include being careful, responsible, and organized. Individuals who are conscientious have a will to achieve as well as an ability to refrain from impulsive behavior. Behaviors for those who are conscientious are generally goal-oriented. Individuals who exemplify the personality trait extroversion tend to be talkative, social, and assertive. These individuals often actively pursue goals, interests, and social interactions. In contrast, individuals who score low on measures of extraversion are more reserved and cautious. Dimensions of the personality trait agreeableness include being modest, gentle, compliant, and compassionate. Individuals who are not agreeable tend to be irritable and inflexible. Lastly, individuals who display traits of neuroticism can experience a variety of negative emotions such as anxiety, depression, and insecurity. Individuals who score low on measures of neuroticism are more calm and emotionally stable (McCrae and Costa 1992; Piedmont 1999; Roccas et al. 2002).[1]

[1] For a more detailed assessment of the markers used for the personality traits in the five-factor model, see Goldberg (1992).

LINKING PERSONALITY AND RELIGION

Several authors (Francis 1991; Henningsgaard and Arnau 2008; Taylor and MacDonald 1999) note that while there has been a fair amount of psychological research regarding the relationship between personality and religion, results tend to be somewhat unreliable and inconsistent. The reason for this is measurement error. Studies vary substantially in terms of the operationalization of religion and the populations examined. While the general trend toward the five-factor model in studies of personality and religion has reduced some measurement error, most studies are still entirely inconsistent in their operationalization and measurement of religion. For example, religion has been measured in terms of religious affiliation, frequency of prayer, self-reported attendance at religious services and or religious events (such as Bible studies), and subjective feelings of religiosity or spirituality. However, the measurement of religion chosen by researchers has not been the same across studies in personality and religion. Furthermore, the populations studied have also been cause for measurement error; samples used in studies of personality and religion have been small and largely homogenous, college-aged, and of one religious group. Studies have also exclusively used cross-sectional data. This has limited the generalizability of results (Francis 1991; Saroglou 2002; Taylor and MacDonald 1999).

In a meta-analytic review, Saroglou (2002) attempted to summarize previous research investigating the relationship between personality and religion. Saroglou (2002) confirmed that religion was measured in several different ways across the studies included in the meta-analytic review. For example, eight studies analyzed intrinsic or general religiosity, ten studies analyzed open and mature religiosity/spirituality, three studies analyzed religious fundamentalism, and three studies analyzed extrinsic religion. Measures of intrinsic or general religiosity included subjective feelings and expressions of religiosity such as prayer or orthodoxy. Measures of open

and mature religiosity/spirituality included using religion as a means of coping and the belief that religion is a quest. Extrinsic religion measured an individual's self-interested motivation to participate in religious activities with the desire to achieve non-religious goals, i.e., finding a romantic partner or making new friends (Hills et al. 2004; Taylor and MacDonald 1999). However, while most studies combined religiosity and spirituality as one measure of religion (Saroglou 2002), it should be noted the theoretical literature supports that they are separate and distinct concepts (Zinnbauer et al. 1997; Koenig, George, and Titus 2004; Koenig, McCullough, and Larson 2001; Saroglou 2002). Furthermore, results from analyses regarding religious fundamentalism and extrinsic religion should be considered only suggestive because of the small number of studies included in the meta-analysis (Saroglou 2002).

Saroglou (2002) found a small negative, but statistically significant, effect of openness on intrinsic or general religiosity. This suggests that individuals who score high on measures of openness are less likely to be intrinsically religious. Openness was also negatively and statistically significantly related to religious fundamentalism. However, openness was positively and statistically significantly related to measures of open and mature religiosity/spirituality. In terms of extraversion, highly extraverted individuals exhibited high levels of intrinsic or general religiosity and open and mature religiosity/spirituality, and these relationships were statistically significant. The effect for extraversion was insignificant in regards to religious fundamentalism and extrinsic religion. In terms of neuroticism, individuals who scored high on levels of neuroticism scored low on measures of open and mature religiosity/spirituality and religious fundamentalism, but high on measures of extrinsic religion (Saroglou 2002).

Overall, effect sizes were small. Conscientiousness and agreeableness showed the largest effect sizes across measures of religion. Conscientiousness was positively and statistically

significantly correlated with intrinsic and general religiosity and open and mature religiosity/spirituality. Agreeableness was positively and statistically significantly correlated with intrinsic and general religiosity, open and mature religiosity/spirituality, and religious fundamentalism. Neither conscientiousness nor agreeableness was statistically significantly correlated with extrinsic religion. Saroglou (2002) suggests that the meta-analytic review gives evidence for conscientiousness and agreeableness to be the strongest correlates of religion. However, contrary to many previous empirical studies, this meta-analytic study suggests that openness, extraversion, and neuroticism were also associated with religion, but the association depends largely on the dimension of religion being measured (Saroglou 2002).

Other studies linking personality with religion, many of which were included in the meta-analytic review described above, suffer from related measurement error problems in regard to religion. Taylor and MacDonald (1999), for example, investigated the relationship between personality and religion in terms of respondents' religious affiliation, religious involvement, and religious orientation. However, their data were from a small, homogenous, and cross-sectional sample (N = 1,129) of university students enrolled in introductory level psychology courses at the University of Windsor (Taylor and MacDonald 1999). They found agreeableness and conscientiousness were positively and significantly predictive of all three measures of religion. In contrast to what is suggested in the meta-analytic review discussed above, neuroticism was not correlated with religious affiliation. Furthermore, contrary to hypotheses that predicted a positive and statistically significant correlation between extraversion and the three measures of religiosity, no significant correlation was found. Openness, on the other hand, was only statistically significantly and negatively associated with extrinsic religious orientation (Taylor and MacDonald 1999).

Henningsgaard and Arnau (2008) built upon Saroglou's (2002) meta-analytic study by investigating religiosity and spirituality as distinct concepts in terms of their relation to personality. However, these authors also used an extremely small and homogenous sample of undergraduate psychology students (n = 230) at the University of Southern Mississippi and 80 family members of these students. Bivariate and multivariate results support a strong correlation between personality and religiosity and spirituality. Specifically, they found that intrinsic religiosity and spirituality were both statistically significant correlates of agreeableness and conscientiousness. There was also a positive and statistically significant association between spiritual meaning and extraversion, and a negative and statistically significant correlation between spiritual meaning and neuroticism. The conclusion was that there was strong evidence for a relationship between personality and measures of spirituality and religiosity (Henningsgaard and Arnau 2008).

Other studies have shown that conscientiousness is positively correlated with religious and spiritual wellbeing (Unterrainer et al. 2010). In terms of extraversion, some studies have found a positive correlation with religion variables (Unterrainer et al. 2010), while others have found no association between religion and extraversion (Eysenck 1998). Neuroticism has been shown to negatively influence religion, broadly speaking (Francis 1992), as well as be negatively linked with religious and spiritual wellbeing (Unterrainer et al. 2010). Hills et al. (2004) found neuroticism to positively influence extrinsic religiosity, but not frequency of church attendance or intrinsic religiosity. Eysenck (1998), however, found no association between religion and neuroticism.

These studies show several trends. Religion (measured in a variety of ways) has been positively and consistently linked to agreeableness and conscientiousness. Some measures of

religion have also been positively linked to openness and extraversion, but these relationships were less consistent across studies. Additionally, religion has been consistently and negatively linked to neuroticism. Several studies also show some measurements of religion to be negatively associated with openness, but these results were less consistent across studies. Furthermore, studies of personality and religion have found agreeableness and conscientiousness to be the strongest personality correlates of religion; neuroticism and extraversion have been the weakest correlates of religion.

However, these studies in personality and religion have been plagued by small, homogenous, and largely college-aged samples that limit the generalizability of the above results to larger populations. Furthermore, and perhaps most importantly for the purpose of this paper, these studies have also not examined personality and religion under the umbrella of sociological theory. Since these studies have been largely housed in the discipline of psychology, they have not considered how the social environment might change the way in which personality and religion are related, an idea driven by a sociological perspective (House 1977). In other words, these studies have taken for granted the causal direction of the relationship; studies in psychology have not allowed for the possibility of changes in personality over time and as individuals age, due to the influence of the social environment on individual personality.

STUDY CONTRIBUTION

Several limitations emerge from a careful reading of existing studies in psychology that link personality and religion. These limitations make further evaluation of the relationship imperative. First, most studies have used small (generally ranging from between 100 to 600 respondents) and homogenous samples (i.e., samples generally consisting of only college-aged

students, of a single race and/or ethnicity, and those who identify with a single religious denomination such as Catholicism) (Saroglou 2002). Second, no study to date has used longitudinal analyses to verify the causal direction of the relationship between personality and religion. The characteristics of these samples are consistent with other psychological studies that often use small, homogenous samples collected from college psychology courses; as such, the weaknesses in analyses of personality and religion have not yet been considered suspect in the discipline of psychology. Therefore, this paper also argues that the use of a large, nationally representative data set, as is common in the discipline of sociology, can help to build upon previous psychological research and show both the existence of the relationship and verify its causal order.

HYPOTHESES

Previous research suggests that personality is an important correlate of religion. Therefore, consistent with findings in previous literature, I predict that openness, conscientiousness, extraversion, and agreeableness will be positively associated with religion whereas neuroticism will be negatively associated with religion. The strength and magnitude of these relationships are expected to vary depending on the measure of religion used. But overall, I hypothesize the following: H_1: Controlling for the other four personality traits, high levels of openness will be associated with high levels of religion; H_2: Controlling for the other four personality traits, high levels of conscientiousness will be associated with high levels of religion; H_3: Controlling for the other four personality traits, high levels of openness will be associated with high levels of religion; H_4: Controlling for the other four personality traits, high levels of

extraversion will be associated with high levels of religion; H_5: Controlling for the other four personality traits, high levels of neuroticism will be associated with high levels of religion.

The sociological perspective guiding the present study theorizes that the social environment influences individuals and individuals, in turn, influence the social environment. As a consequence, additional analysis explores whether personality's influence is inconsistent across time (i.e., from Wave I to Wave II). If there is inconsistency in the relationship between personality and religion across Wave I and Wave II, then the sociological perspective on personality is supported in that individual differences appear to be responsive to the social environment. Such a result would challenge psychological explanations of the nature of personality.

Finally, this present study addresses the causal direction of the relationship between personality and religion. Studies in psychology suggest that personality is constant and unchanging. However, a sociological perspective would suggest that personality is not fixed, but responsive to the social environment. As such, longitudinal analyses investigate whether the social environment (in the form of religion) can influence individual differences. Specifically, I hypothesize: H_6: Childhood religion and prior levels of adult religion predict adult personality; H_7: Childhood religion and prior levels of adult religion predict changes in adult personality.

METHODS

Data

To test hypothesized relationships, I used data from the Midlife Development in the United States (MIDUS) I and II surveys. The MIDUS I and MIDUS II follow-up studies were conducted by the John D. and Catherine T. MacArthur Foundation Research Network on

Successful Midlife Development and sponsored by the National Institute on Aging. The MIDUS I study was conducted between the years of 1994 and 1996. The MIDUS II follow-up study was conducted between the years of 2004 and 2006. The MIDUS is a national study of health and well-being utilizing both telephone interviews and self-administered questionnaires to collect survey data. The self-administered questionnaire was the source of data for this manuscript.

The original survey included 7,108 Americans aged 25 to 74. This included twin, sibling, and city oversamples. Respondents were all non-institutionalized, English-speaking adults. The sample was obtained through a random-digit-dialing method, drawn from working telephone banks in the coterminous United States. In this design, an equal probability sample of telephone numbers was selected. Contacted households were informed that participation involved a telephone interview and two lengthy mail-in questionnaires. Information was collected from the contact person regarding the demographics of individuals living in that household. This helped to determine eligibility of residents for the interview and questionnaire; it also aided in locating eligible individuals for the twin and sibling oversamples. A household listing was then generated of English-speaking people in the designated age range (25-74), and a random respondent from each household, meeting the criteria, was selected (MIDUS 2011).

This study uses variables from the main sample of the mail-in self-administered questionnaires from the MIDUS I study and MIDUS II follow-up study. For the MIDUS I main sample, there was a 70% response rate for the telephone interview. Of those respondents who completed the telephone interview, 86.3% also completed the self-administered questionnaire sent by mail. This yielded an overall response rate of 60.8%. Compared to the Current Population Study, this sample under-represented individuals with a high school education or less and African Americans (MIDUS 2011). It over-represented older males by design to allow for

age comparisons. The main sample has an overall sample size of N = 3,487 before listwise deletion of missing cases (MIDUS 2011).

Of the original 7,108 respondents contacted for the MIDUS I, 4,963 were successfully contacted for participation in the MIDUS II follow-up. Approximately 75% of these respondents completed the phone interview. The overall response rate for those who also completed the self-administered mail-in questionnaire (approximately 55 pages in length) was 81%. This yielded a sample size of N = 2,257 before listwise deletion of missing cases (MIDUS 2011). In order to appropriately measure changes over time, the sample used for analyses in this manuscript was constrained such that the same respondents are included in both Wave I and Wave II analyses; this yielded a final sample size of N = 1,465 for analyses.

Variables

Dependent Variables. Eleven religion variables were used as separate dependent variables in analyses. The means and mean change over time of these variables can be seen in Table 1c. There were two variables measuring *degree* of religion: 1) how religious an individual describes oneself as feeling and 2) how spiritual an individual describes oneself as feeling. There were three variables measuring *importance* of religion: 1) how important religion is in one's life, 2) how important spirituality is in one's life, and 3) how important one believes it is to send children for religious instruction. Three variables measured *closure* in religion (i.e., how insulated individuals were in their religious networks): 1) how strongly one identifies with a particular religious group, 2) how strongly one prefers individuals of the same religion, and 3) how important it is to marry within one's own religion. The above eight variables were all measured on a scale of 1 (Not at all), 2 (Not Very), 3 (Somewhat), and 4 (Very). Variables were

reverse recoded where necessary so that high values correlated with high levels of religion for that particular variable.

Additionally, there were two variables that measured *strategies* of religion: 1) how often one turns to religion during times of conflict (i.e., religious coping) and 2) how often one uses religious beliefs to make decisions (i.e., religious decision-making). These variables were coded on a scale of 1 (Never), 2 (Rarely), 3 (Sometimes), and 4 (Often). They were reverse recoded so that high values corresponded with high levels of religion. Furthermore, one variable was used to measure *attendance*: how often one attends religious services. This variable was reverse-recoded so that high values were associated with high levels of attendance; the final scale was 1 (Never), 2 (Less than once a month), 3 (One to three times a month), 4 (About once a week), 5 (More than once a week). Attendance at Wave II included the additional category of "once a day or more" which was recoded to be included in 5 (More than once a week).

Independent Variables. The MIDUS I and MIDUS II self-administered questionnaires included questions of personality measures based on the five-factor model of personality. These questions were developed based on results from a pilot study conducted in 1994 with a sample of 1000 men and women aged 30-74. Items with the highest item to total correlations and factor loadings were selected (Goodwin & Friedman 2006). Respondents were asked to answer how well 25 different adjectives described themselves with a scale of 1 (A lot), 2 (Some), 3 (A little), and 4 (Not at all). Scales were constructed for each of the five personality traits using 4-8 adjectives by calculating the mean across items indicating the dimensions of that particular personality trait. Indicators of openness include: creative, imaginative, intelligent, curious, broad-minded, sophisticated, and adventurous (α = 0.77). Indicators of conscientiousness include: organized, responsible, careless (reverse recoded), and hardworking (α = 0.58).

Indicators of extraversion include: outgoing, friendly, lively, active, and talkative (α = 0.78). Indicators of agreeableness include: helpful, warm, caring, softhearted, and sympathetic (α = 0.80). Indicators of neuroticism include: moody, worrying, calm (reverse recoded), and nervous (α = 0.74). The means and mean change over time of these variables can be seen in Table 1b.

Control Variables. Models controlled for race, sex, employment, education, marital status, age, and religious denomination. Race was coded as white and non-white; sex was coded as male and female; employment was coded as employed and unemployed; education was coded as 1 (No school/some grade school), 2 (Eighth grade/Junior high school), 3 (Some high school), 4 (GED), 5 (Graduated from high school), 6 (1 to 2 years of college, no degree), 7 (3 or more years of college, no degree), 8 (Graduated from 2 year college or vocational school, or received an Associate's degree), 9 (Graduated from 4 or 5 year college or received Bachelor's degree), 10 (some graduate school), 11 (received Master's degree), and 12 (received Ph.D, Ed.D, MD, DDS, LLB, LLD, JD, or other professional degree); marital status was coded into dichotomous variables of married, formerly married, and never married, with married as the excluded group; age ranged from 25 to 74 at Wave I and 35 to 86 at Wave II; and religious denomination was recoded into Non-Affiliated Protestant, Other Protestant, Baptist, Lutheran, Methodist, Catholic, No Religion, and Other Religion. These categories were selected based on theory and attention to sample sizes in each group. Respondents in Other Religion were dropped from analyses due to a small sample size insufficient for accurate and generalizable analyses. Dichotomous variables were then created for Non-Affiliated Protestant, Other Protestant, Baptist, Lutheran, Methodist, Catholic, and No Religion, with Catholic serving as the excluded group in analyses. The univariate distribution of these variables can be seen in Table 1a.

Analytic Strategies

First, Ordinary Least Squares regression analyses were performed on all religion dependent variables to determine the association between personality and religion. For each religion dependent variable, personality traits were each introduced individually into the model (Models 2 through 6), and then introduced simultaneously in the final model (Models 7). These analyses were repeated for Wave II data. Regressions controlled for the demographic characteristics of race, sex, employment, education, marital status, age, and religious denomination (Models 1). Second, Ordinary Least Squares regression analyses were used to produce a lagged regression model. Religion variables and childhood religiosity at Wave I were used to predict personality traits at Wave II. A separate regression was performed for each of the five personality traits. This test was used to investigate how previous levels of religion (both childhood and adult) predict later levels of each personality trait. Analyses were repeated to include religion variables at Wave I, childhood religiosity at Wave I, and personality traits at Wave I to predict the corresponding personality trait at Wave II. A separate regression was performed for each of the five personality traits. This test was used to investigate how childhood and prior adult religion predicts changes in personality over time.

RESULTS

Tables 1a, 1b, and 1c describe the univariate distribution of personality, religion, and control variables at Wave I and Wave II. At Wave I, approximately 92.08% of respondents were white and 7.92% were a non-white minority; 45.53% were male and 54.57% were female; 36.52% were unemployed and 63.48% were employed; 0.41% completed no school, 1.16% completed 8th grade or junior high school, 4.51% completed some high school, 1.23% received a

GED, 28.12% graduated from high school, 18.36% completed one or two years of college (no degree), 4.64% completed three or more years of college (no degree), 7.03% received an Associate's degree, 18.91% received a Bachelor's degree, 3.14% completed some graduate school, 8.87% completed a Master's degree, and 3.62% completed a professional degree; approximately 69.69% of respondents were married, 20.89% were formerly married (widowed or divorced), and 9.42% were never married. The average age at Wave I was 47.29 years old. In terms of religious denomination, 26.89% were Catholic, 9.83% were non-affiliated Protestant, 21.16% were other Protestant, 13.65% were Baptist, 7.51% were Lutheran, 9.22% were Methodist, and 11.74% were of no religion.

Table 1a. Demographic Characteristics of Sample

	Wave I	Wave II	Δ	∝
Variables	%	%		
Race			-11.90***	
Nonwhite	7.92	8.87		
White	92.08	91.13		
Sex				
Male	45.53	45.53	0	
Female	54.57	54.47		
Employment				
Unemployed	36.52	49.97	10.10***	
Employed	63.48	50.03		
Education				
No School	0.41	0.41	0	
Junior High	1.16	1.16		
Some High	4.51	4.51		
GED	1.23	1.23		
High School	28.12	28.12		
1-2 College	18.36	18.36		
3+ College	4.64	4.64		
Associate's	7.03	7.03		
Bachelor's	18.91	18.91		
Some Grad	3.14	3.14		
Master's	8.87	8.87		
Professional	3.62	3.62		
Marital Status			2.43	
Married	69.69	69.97		
Formerly Married	20.89	23.41		
Never Married	9.42	6.62		
Age			-0.01***	
(means)	47.29	56.45		
Denomination			-1.62	
Catholic	26.89	24.71		
NA Protestant	9.83	9.90		
Other Protestant	21.16	20.61		
Baptist	13.65	13.92		
Lutheran	7.51	7.51		
Methodist	9.22	7.65		
No Religion	11.74	15.70		

Table 1b. Means of Independent Variables

	Wave I	Wave II	Δ	∝
Variables	%	%		
Openness	3.02	2.97	2.61**	0.77
Conscientiousness	3.44	3.41	1.79	0.58
Extraversion	3.19	3.12	4.25***	0.78
Agreeableness	3.47	3.46	0.37	0.80
Neuroticism	2.24	2.14	5.66***	0.74

Table 1c. Means of Dependent Variables

	Wave I	Wave II	Δ	∝
Variables	%	%		
How Religious	2.88	2.86	0.9919	
How Spiritual	3.02	3.16	-7.44***	
Religion Importance	3.09	3.08	0.88	
Spirituality Importance	3.15	3.28	-6.88***	
Religious Instruction for Children	3.31	3.23	3.53***	
Identify with Group	2.75	2.77	-1.02	
Prefer Same People	2.33	2.39	-2.57**	
Marry Same Religion	2.25	2.25	0.20	
Religious Coping	2.89	2.89	-0.08	
Religious Decision-Making	2.72	2.73	-0.39	
Religious Attendance	2.88	2.43	13.40***	

Status characteristics such as sex and education did not change over time. Race, employment, marital status, age, and religious denomination did change over time, although these changes were small. At Wave II, approximately 91.13% were white and 8.87% were a non-white minority; 49.97% were unemployed and 50.03% were employed; 69.97% were married, 23.41% were formerly married, and 6.62% were never married; the mean age was 56.45; and 24.71% were Catholic, 9.90% were non-affiliated Protestant, 20.61% were other Protestant, 13.92% were Baptist, 7.51% were Lutheran, 7.65% were Methodist, and 15.70% were of no religion. While the change in race was statistically significant, it should be noted that a portion of the variation in race over time could be attributed to the different survey questions used to ask respondents to report their race in the self-administered questionnaire between Wave I and Wave II. At Wave I, respondents were only able to report one race, i.e. their main identifying race. At Wave II, respondents were allowed to select multiple racial groups, allowing for more individuals to identify as a non-white minority at Wave II.

Tables 2 through 23 present results from Ordinary Least Squares regression of religion variables on personality. These regression models control for race, sex, employment, education, marital status, age, and religious denomination (see Model 1 in Tables 2 through 23). Of the controls, only the coefficients for religious denomination are shown in the tables for simplicity. Unstandardized coefficients and their standard errors are presented. The sample is constrained such that the same respondents are included in both Wave I and Wave II analyses (n = 1194). Models 2 through 6 in each table introduce the five-factor personality traits sequentially and individually (openness, conscientiousness, extraversion, agreeableness, and neuroticism, respectively). Model 7 in each table includes all five personality traits simultaneously in the model. Model 7 in each table addresses Hypotheses H_1 through H_5 that personality traits predict

religion. Table 24 presents results from Lagged Ordinary Least Squares regression of personality and religion variables. Although not shown or discussed, these regression models control for race, sex, employment, education, marital status, age, and religious denomination.

Personality Predicting Religion at Wave I

Tables 2 through 12 present ordinary least squares regressions of religion on personality using Wave I data. Although not discussed below, these regression analyses control for race, sex, employment, education, marital status, age, and religious denomination.

Table 2. OLS Regression of How Religious by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.075	-0.066	-0.069	-0.068	-0.054	-0.075	-0.055
	(0.070)	(0.070)	(0.070)	(0.069)	(0.069)	(0.070)	(0.069)
Other Protestant	0.097	0.097	0.107*	0.101	0.100	0.096	0.106*
	(0.054)	(0.054)	(0.054)	(0.054)	(0.053)	(0.054)	(0.054)
Baptist	0.147*	0.158*	0.151*	0.160*	0.154*	0.146*	0.155*
	(0.063)	(0.063)	(0.063)	(0.062)	(0.062)	(0.063)	(0.062)
Lutheran	0.054	0.059	0.054	0.067	0.074	0.053	0.075
	(0.077)	(0.077)	(0.077)	(0.077)	(0.076)	(0.077)	(0.076)
Methodist	-0.137	-0.133	-0.138	-0.136	-0.132	-0.137	-0.134
	(0.071)	(0.071)	(0.071)	(0.071)	(0.070)	(0.071)	(0.070)
No Religion	-1.126***	-1.135***	-1.116***	-1.102***	-1.078***	-1.127***	-1.066***
	(0.066)	(0.066)	(0.066)	(0.066)	(0.065)	(0.066)	(0.066)
Openness		0.100**					-0.044
		(0.038)					(0.045)
Conscientiousness			0.124**				0.053
			(0.043)				(0.045)
Extraversion				0.155***			0.060
				(0.034)			(0.043)
Agreeableness					0.274***		0.244***
					(0.039)		(0.047)
Neuroticism						-0.016	0.004
						(0.029)	(0.030)
Constant	2.556***	2.284***	2.161***	2.061***	1.633***	2.604***	1.481***
	(0.138)	(0.172)	(0.193)	(0.174)	(0.190)	(0.164)	(0.250)
R-squared	0.257	0.260	0.261	0.267	0.280	0.256	0.280
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 3. OLS Regression of How Spiritual by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.051	-0.025	-0.041	-0.042	-0.027	-0.051	0.014
	(0.074)	(0.073)	(0.074)	(0.074)	(0.073)	(0.074)	(0.073)
Other Protestant	0.192***	0.192***	0.209***	0.197***	0.196***	0.191***	0.204***
	(0.058)	(0.057)	(0.058)	(0.057)	(0.057)	(0.058)	(0.057)
Baptist	0.171*	0.201**	0.178**	0.187**	0.179**	0.170*	0.199**
	(0.067)	(0.066)	(0.066)	(0.066)	(0.066)	(0.067)	(0.065)
Lutheran	0.008	0.020	0.008	0.024	0.030	0.007	0.032
	(0.082)	(0.081)	(0.082)	(0.082)	(0.081)	(0.082)	(0.080)
Methodist	-0.054	-0.043	-0.055	-0.052	-0.048	-0.054	-0.044
	(0.076)	(0.075)	(0.076)	(0.075)	(0.075)	(0.076)	(0.074)
No Religion	-0.502***	-0.525***	-0.485***	-0.472***	-0.447***	-0.502***	-0.468***
	(0.070)	(0.069)	(0.070)	(0.070)	(0.069)	(0.070)	(0.070)
Openness		0.267***					0.158***
		(0.040)					(0.048)
Conscientiousness			0.204***				0.098*
			(0.045)				(0.048)
Extraversion				0.192***			0.009
				(0.036)			(0.045)
Agreeableness					0.312***		0.216***
					(0.042)		(0.050)
Neuroticism						-0.014	0.022
						(0.031)	(0.031)
Constant	2.372***	1.642***	1.724***	1.759***	1.323***	2.415***	0.809**
	(0.147)	(0.181)	(0.205)	(0.185)	(0.202)	(0.174)	(0.264)
R-squared	0.101	0.127	0.113	0.118	0.133	0.100	0.143
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Tables 2 and 3 show *degree of religion* dependent variables: how religious one describes oneself as feeling and how spiritual one describes oneself as feeling. In Table 2, all personality traits except neuroticism individually predicted how religious respondents felt (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 2), only agreeableness remained an important predictor. Specifically, high levels of agreeableness were associated with describing oneself as feeling highly religious. In Table 3, all personality traits except neuroticism individually predicted how spiritual respondents felt (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 3), only openness, conscientiousness, and agreeableness remained important predictors. Specifically, high levels of openness, high levels of conscientiousness, and high levels of agreeableness were all associated with describing oneself as feeling highly spiritual.

Table 4. OLS Regression of Religion Importance by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.220**	-0.213**	-0.215**	-0.211**	-0.194**	-0.220**	-0.200**
	(0.074)	(0.074)	(0.073)	(0.073)	(0.072)	(0.074)	(0.072)
Other Protestant	0.068	0.068	0.077	0.073	0.072	0.069	0.078
	(0.057)	(0.057)	(0.057)	(0.057)	(0.056)	(0.057)	(0.056)
Baptist	0.216**	0.224***	0.220***	0.231***	0.224***	0.216**	0.222***
	(0.066)	(0.066)	(0.066)	(0.066)	(0.065)	(0.066)	(0.065)
Lutheran	0.192*	0.195*	0.192*	0.207*	0.215**	0.192*	0.219**
	(0.081)	(0.081)	(0.081)	(0.081)	(0.080)	(0.081)	(0.080)
Methodist	-0.069	-0.067	-0.070	-0.068	-0.063	-0.069	-0.067
	(0.075)	(0.075)	(0.075)	(0.075)	(0.074)	(0.075)	(0.074)
No Religion	-1.283***	-1.289***	-1.275***	-1.256***	-1.226***	-1.283***	-1.201***
	(0.070)	(0.070)	(0.070)	(0.069)	(0.068)	(0.070)	(0.069)
Openness		0.068					-0.115*
		(0.040)					(0.047)
Conscientiousness			0.101*				0.027
			(0.045)				(0.047)
Extraversion				0.179***			0.098*
				(0.035)			(0.045)
Agreeableness					0.331***		0.317***
					(0.041)		(0.050)
Neuroticism						0.010	0.028
						(0.031)	(0.031)
Constant	2.632***	2.446***	2.311***	2.058***	1.518***	2.603***	1.397***
	(0.145)	(0.181)	(0.203)	(0.183)	(0.199)	(0.172)	(0.261)
R-squared	0.315	0.316	0.317	0.327	0.344	0.315	0.346
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Tables 4 through 6 show the *importance of religion* dependent variables: importance of religion in one's life, importance of spirituality in one's life, and the importance of sending children for religious instruction. In Table 4, conscientiousness, extraversion, and agreeableness individually predicted the importance of religion in respondents' lives (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 4), openness, extraversion, and agreeableness were statistically significant predictors. Specifically, low levels of openness, high levels of extraversion, and high levels of agreeableness were associated with reporting religion as being highly important in one's life. The openness effect indicated suppression; the inclusion of the other four personality traits (see Model 7 in Table 4) increases the statistical significance of openness. This suggests that personality traits are not entirely unique and uncorrelated. The inclusion of at least one other personality trait improved the predictive power of openness in relation to the importance of religion in one's life.

Table 5. OLS Regression of Spirituality Importance by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.174*	-0.153	-0.167*	-0.164*	-0.147	-0.174*	-0.140
	(0.079)	(0.079)	(0.079)	(0.078)	(0.078)	(0.079)	(0.078)
Other Protestant	0.199**	0.199**	0.211***	0.204***	0.203***	0.198**	0.207***
	(0.061)	(0.061)	(0.061)	(0.061)	(0.060)	(0.062)	(0.060)
Baptist	0.258***	0.283***	0.263***	0.275***	0.267***	0.258***	0.279***
	(0.071)	(0.071)	(0.071)	(0.071)	(0.070)	(0.071)	(0.070)
Lutheran	0.080	0.090	0.081	0.097	0.106	0.080	0.109
	(0.087)	(0.087)	(0.087)	(0.087)	(0.086)	(0.088)	(0.086)
Methodist	-0.014	-0.005	-0.015	-0.012	-0.008	-0.014	-0.005
	(0.081)	(0.080)	(0.081)	(0.080)	(0.079)	(0.081)	(0.079)
No Religion	-0.583***	-0.602***	-0.571***	-0.553***	-0.522***	-0.584***	-0.532***
	(0.075)	(0.074)	(0.075)	(0.074)	(0.074)	(0.075)	(0.074)
Openness		0.220***					0.083***
		(0.042)					(0.051)
Conscientiousness			0.151**				0.040
			(0.048)				(0.051)
Extraversion				0.197***			0.026
				(0.038)			(0.048)
Agreeableness					0.355***		0.295***
					(0.044)		(0.053)
Neuroticism						-0.009	0.018
						(0.033)	(0.033)
Constant	2.579***	1.980***	2.100***	1.950***	1.385***	2.607***	1.096***
	(0.156)	(0.193)	(0.219)	(0.196)	(0.214)	(0.186)	(0.282)
R-squared	0.120	0.135	0.125	0.135	0.156	0.119	0.157
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 6. OLS Regression of Religious Instruction for Children by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.207**	-0.199**	-0.203**	-0.200**	-0.187*	-0.207**	-0.189**
	(0.074)	(0.074)	(0.074)	(0.074)	(0.073)	(0.074)	(0.073)
Other Protestant	-0.010	-0.010	-0.003	-0.006	-0.007	-0.009	-0.002
	(0.057)	(0.057)	(0.058)	(0.057)	(0.057)	(0.057)	(0.057)
Baptist	0.046	0.055	0.049	0.058	0.052	0.046	0.054
	(0.066)	(0.066)	(0.066)	(0.066)	(0.066)	(0.066)	(0.066)
Lutheran	0.068	0.072	0.068	0.080	0.087	0.069	0.091
	(0.082)	(0.082)	(0.082)	(0.081)	(0.081)	(0.082)	(0.081)
Methodist	-0.166*	-0.162*	-0.166*	-0.165*	-0.161*	-0.165*	-0.163*
	(0.076)	(0.076)	(0.076)	(0.075)	(0.075)	(0.076)	(0.075)
No Religion	-1.205***	-1.212***	-1.198***	-1.183***	-1.160***	-1.204***	-1.147***
	(0.070)	(0.070)	(0.070)	(0.070)	(0.069)	(0.070)	(0.070)
Openness		0.080*					-0.049
		(0.040)					(0.048)
Conscientiousness			0.081				0.020
			(0.045)				(0.048)
Extraversion				0.141***			0.066
				(0.035)			(0.046)
Agreeableness					0.256***		0.235***
					(0.042)		(0.050)
Neuroticism						0.017	0.033
						(0.031)	(0.031)
Constant	3.107***	2.888***	2.851***	2.658***	2.246***	3.055***	2.077***
	(0.146)	(0.182)	(0.205)	(0.184)	(0.202)	(0.173)	(0.266)
R-squared	0.224	0.226	0.225	0.232	0.243	0.224	0.243
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

In Table 5, all personality traits except neuroticism individually predicted the importance of spirituality in respondents' lives (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 5), only openness and agreeableness remained important predictors. Specifically, high levels of openness and high levels of agreeableness were associated with reporting spirituality as being highly important in one's life. In Table 6, openness, extraversion, and agreeableness predicted how important one believed it is to send children for religious instruction (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 6), only agreeableness remained an important predictor of how important it is believed to be to send children for religious instruction. Specifically, high levels of agreeableness were associated with individuals agreeing it is important to send children for religious instruction.

Table 7. OLS Regression of Identify with Religious Group by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.538***	-0.529***	-0.533***	-0.526***	-0.516***	-0.538***	-0.523***
	(0.086)	(0.086)	(0.086)	(0.085)	(0.085)	(0.086)	(0.085)
Other Protestant	0.110	0.110	0.118	0.116	0.114	0.106	0.115
	(0.067)	(0.067)	(0.067)	(0.066)	(0.066)	(0.067)	(0.066)
Baptist	0.079	0.089	0.082	0.099	0.086	0.076	0.085
	(0.078)	(0.078)	(0.078)	(0.077)	(0.077)	(0.078)	(0.077)
Lutheran	0.111	0.115	0.111	0.132	0.132	0.107	0.136
	(0.095)	(0.095)	(0.095)	(0.094)	(0.094)	(0.095)	(0.094)
Methodist	-0.193*	-0.189*	-0.193*	-0.191*	-0.188*	-0.193*	-0.192*
	(0.088)	(0.088)	(0.088)	(0.087)	(0.087)	(0.088)	(0.087)
No Religion	-1.470***	-1.478***	-1.463***	-1.434***	-1.421***	-1.472***	-1.394***
	(0.082)	(0.082)	(0.082)	(0.081)	(0.081)	(0.082)	(0.082)
Openness		0.086					-0.120*
		(0.047)					(0.056)
Conscientiousness			0.089				-0.006
			(0.053)				(0.056)
Extraversion				0.240***			0.195***
				(0.041)			(0.053)
Agreeableness					0.286***		0.218***
					(0.049)		(0.059)
Neuroticism						-0.069	-0.043
						(0.036)	(0.037)
Constant	1.972***	1.736***	1.691***	1.204***	1.010***	2.182***	1.095***
	(0.170)	(0.213)	(0.239)	(0.214)	(0.236)	(0.202)	(0.309)
R-squared	0.284	0.285	0.285	0.300	0.300	0.285	0.306
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 8. OLS Regression of Prefer Same Religion People by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.106	-0.104	-0.109	-0.103	-0.098	-0.106	-0.102
	(0.090)	(0.090)	(0.090)	(0.090)	(0.090)	(0.090)	(0.090)
Other Protestant	0.411***	0.411***	0.406***	0.412***	0.412***	0.411***	0.406***
	(0.070)	(0.070)	(0.070)	(0.070)	(0.070)	(0.070)	(0.070)
Baptist	0.494***	0.497***	0.492***	0.499***	0.496***	0.494***	0.495***
	(0.081)	(0.081)	(0.081)	(0.081)	(0.080)	(0.081)	(0.081)
Lutheran	0.125	0.126	0.124	0.130	0.132	0.125	0.136
	(0.099)	(0.099)	(0.099)	(0.099)	(0.099)	(0.099)	(0.099)
Methodist	-0.030	-0.029	-0.030	-0.029	-0.028	-0.030	-0.028
	(0.092)	(0.092)	(0.092)	(0.092)	(0.092)	(0.092)	(0.092)
No Religion	-0.658***	-0.661***	-0.663***	-0.649***	-0.639***	-0.658***	-0.639***
	(0.085)	(0.085)	(0.085)	(0.085)	(0.085)	(0.085)	(0.086)
Openness		0.028					-0.014
		(0.049)					(0.059)
Conscientiousness			-0.055				-0.092
			(0.055)				(0.059)
Extraversion				0.060			0.036
				(0.043)			(0.056)
Agreeableness					0.109*		0.116
					(0.051)		(0.062)
Neuroticism						0.010	0.007
						(0.037)	(0.039)
Constant	1.874***	1.797***	2.050***	1.682***	1.507***	1.843***	1.679***
	(0.177)	(0.221)	(0.248)	(0.224)	(0.247)	(0.210)	(0.326)
R-squared	0.154	0.153	0.154	0.154	0.156	0.153	0.155
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 9. OLS Regression of Marry Within Same Religion by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.446***	-0.450***	-0.449***	-0.446***	-0.445***	-0.446***	-0.450***
	(0.098)	(0.098)	(0.098)	(0.098)	(0.098)	(0.098)	(0.098)
Other Protestant	0.074	0.074	0.068	0.074	0.074	0.077	0.074
	(0.076)	(0.076)	(0.076)	(0.076)	(0.076)	(0.076)	(0.076)
Baptist	0.122	0.117	0.120	0.123	0.122	0.125	0.121
	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)
Lutheran	-0.204	-0.206	-0.204	-0.204	-0.204	-0.201	-0.198
	(0.108)	(0.108)	(0.108)	(0.108)	(0.108)	(0.108)	(0.108)
Methodist	-0.491***	-0.492***	-0.490***	-0.490***	-0.490***	-0.490***	-0.491***
	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)
No Religion	-0.992***	-0.988***	-0.998***	-0.991***	-0.990***	-0.990***	-0.980***
	(0.093)	(0.093)	(0.093)	(0.093)	(0.093)	(0.093)	(0.094)
Openness		-0.043					-0.053
		(0.053)					(0.065)
Conscientiousness			-0.071				0.058
			(0.060)				(0.064)
Extraversion				0.003			0.043
				(0.047)			(0.061)
Agreeableness					0.008		0.022
					(0.056)		(0.068)
Neuroticism						0.064	0.059
						(0.041)	(0.042)
Constant	1.695***	1.813***	1.921***	1.686***	1.670***	1.500***	1.632***
	(0.193)	(0.241)	(0.271)	(0.245)	(0.270)	(0.229)	(0.356)
R-squared	0.144	0.143	0.144	0.143	0.143	0.144	0.143
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Tables 7 through 9 show analyses for the *religious closure* dependent variables: how strongly one identifies with a particular religious group, how strongly one prefers to interact with people of the same religion, and the importance of marrying within the same religion. In Table 7, extraversion and agreeableness individually predicted how strongly respondents reported identifying with a particular religious group (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 7), openness, extraversion, and agreeableness were statistically significant predictors. Specifically, low levels of openness, high levels of extraversion, and high levels of agreeableness were associated with identifying strongly with a particular religious group. Once again, openness indicates a suppression effect. In Table 8, only agreeableness predicted how much respondents reported preferring people of their same religion (see Models 2 through 6). However, when all five personality traits were introduced simultaneously in the model (see Model 7 in Table 8) no personality trait was a statistically significant predictor. In Table 9, no personality traits predicted how respondents' described the importance of marrying someone of one's same religion (see Models 2 through 6). This remained true once all personality traits were introduced simultaneously in the model (see Model 7 in Table 9). This suggests that religious marital endogamy is not affected by individual personality traits.

Table 10. OLS Regression of Religious Coping by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.242*	-0.230*	-0.239*	-0.237*	-0.215*	-0.242*	-0.214*
	(0.101)	(0.101)	(0.101)	(0.101)	(0.100)	(0.101)	(0.100)
Other Protestant	0.181*	0.181*	0.186*	0.184*	0.185*	0.183*	0.183*
	(0.079)	(0.079)	(0.079)	(0.079)	(0.078)	(0.079)	(0.078)
Baptist	0.307***	0.321***	0.309***	0.316***	0.316***	0.308***	0.314***
	(0.091)	(0.091)	(0.091)	(0.091)	(0.090)	(0.091)	(0.090)
Lutheran	0.026	0.032	0.026	0.036	0.052	0.028	0.052
	(0.112)	(0.112)	(0.112)	(0.112)	(0.111)	(0.112)	(0.111)
Methodist	-0.277**	-0.273**	-0.278**	-0.277**	-0.271**	-0.277**	-0.269**
	(0.104)	(0.103)	(0.104)	(0.103)	(0.102)	(0.104)	(0.102)
No Religion	-1.043***	-1.054***	-1.038***	-1.027***	-0.980***	-1.042***	-0.987***
	(0.096)	(0.096)	(0.096)	(0.096)	(0.095)	(0.096)	(0.096)
Openness		0.125*					0.020
		(0.055)					(0.066)
Conscientiousness			0.059				-0.030
			(0.062)				(0.066)
Extraversion				0.107*			-0.064
				(0.049)			(0.063)
Agreeableness					0.362***		0.402***
					(0.057)		(0.069)
Neuroticism						0.028	0.029
						(0.042)	(0.043)
Constant	2.001***	1.660***	1.814***	1.659***	0.782**	1.917***	0.807*
	(0.200)	(0.250)	(0.281)	(0.254)	(0.276)	(0.238)	(0.364)
R-squared	0.182	0.185	0.182	0.184	0.204	0.182	0.203
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 11. OLS Regression of Religious Decision Making by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.232*	-0.214*	-0.230*	-0.227*	-0.205*	-0.232*	-0.199*
	(0.100)	(0.100)	(0.100)	(0.100)	(0.099)	(0.100)	(0.099)
Other Protestant	0.315***	0.315***	0.319***	0.318***	0.319***	0.317***	0.315***
	(0.078)	(0.077)	(0.078)	(0.078)	(0.077)	(0.078)	(0.077)
Baptist	0.449***	0.470***	0.451***	0.458***	0.458***	0.451***	0.463***
	(0.090)	(0.090)	(0.090)	(0.090)	(0.089)	(0.090)	(0.089)
Lutheran	0.024	0.032	0.024	0.033	0.050	0.026	0.050
	(0.111)	(0.110)	(0.111)	(0.111)	(0.109)	(0.111)	(0.109)
Methodist	-0.151	-0.144	-0.151	-0.150	-0.144	-0.151	-0.140
	(0.102)	(0.102)	(0.102)	(0.102)	(0.101)	(0.102)	(0.101)
No Religion	-0.894***	-0.910***	-0.890***	-0.878***	-0.831***	-0.893***	-0.855***
	(0.095)	(0.094)	(0.095)	(0.095)	(0.094)	(0.095)	(0.095)
Openness		0.185***					0.112
		(0.054)					(0.065)
Conscientiousness			0.054				-0.047
			(0.061)				(0.065)
Extraversion				0.106*			-0.097
				(0.048)			(0.062)
Agreeableness					0.361***		0.385***
					(0.057)		(0.068)
Neuroticism						0.034	0.037
						(0.042)	(0.042)
Constant	1.769***	1.264***	1.598***	1.431***	0.557*	1.665***	0.516
	(0.198)	(0.246)	(0.277)	(0.250)	(0.273)	(0.235)	(0.359)
R-squared	0.168	0.174	0.168	0.170	0.190	0.168	0.191
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Tables 10 and 11 show analyses for the *religious strategy* dependent variables: religious coping and religious decision-making. In Table 10, openness, extraversion, and agreeableness individually predicted how much individuals sought comfort in religion during times of conflict (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 10), only agreeableness remained a statistically significant predictor. Specifically, high levels of agreeableness were associated with seeking comfort in religion during times of conflict. In Table 11, openness, extraversion, and agreeableness individually predicted how much individuals turned to religious beliefs to make decisions (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 11), only agreeableness remained a statistically significant predictor. Specifically, high levels of agreeableness were associated with respondents reporting they often used religious beliefs to make decisions.

Table 12. OLS Regression of Religious Attendance by Five-Factor Personality Traits and Controls at Wave I

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.601***	-0.601***	-0.601***	-0.592***	-0.582***	-0.601***	-0.596***
	(0.117)	(0.117)	(0.117)	(0.117)	(0.117)	(0.117)	(0.117)
Other Protestant	0.287**	0.287**	0.286**	0.292**	0.290**	0.282**	0.283**
	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)
Baptist	0.319**	0.319**	0.319**	0.334**	0.325**	0.316**	0.312**
	(0.105)	(0.106)	(0.105)	(0.105)	(0.105)	(0.105)	(0.105)
Lutheran	0.107	0.107	0.107	0.123	0.125	0.103	0.126
	(0.130)	(0.130)	(0.130)	(0.129)	(0.129)	(0.130)	(0.129)
Methodist	-0.229	-0.229	-0.229	-0.228	-0.224	-0.230	-0.231
	(0.120)	(0.120)	(0.120)	(0.120)	(0.119)	(0.120)	(0.119)
No Religion	-1.501***	-1.500***	-1.501***	-1.473***	-1.457***	-1.503***	-1.425***
	(0.111)	(0.111)	(0.111)	(0.111)	(0.111)	(0.111)	(0.112)
Openness		-0.003					-0.187*
		(0.064)					(0.077)
Conscientiousness			-0.005				-0.085
			(0.072)				(0.076)
Extraversion				0.179**			0.161*
				(0.056)			(0.073)
Agreeableness					0.251***		0.250**
					(0.067)		(0.080)
Neuroticism						-0.079	-0.074
						(0.049)	(0.050)
Constant	1.952***	1.961***	1.969***	1.379***	1.108***	2.191***	1.604***
	(0.231)	(0.289)	(0.325)	(0.293)	(0.322)	(0.275)	(0.424)
R-squared	0.219	0.218	0.218	0.224	0.226	0.220	0.230
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 12 shows analysis for the *religious attendance* dependent variable. Extraversion and agreeableness both individually predicted how often respondents reported attending religious services (see Models 2 through 6 in Table 12). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 12), openness, extraversion, and agreeableness all predicted how often individuals reported attending religious services. Specifically, low levels of openness, high levels of extraversion, and high levels of agreeableness were all associated with increased attendance at religious services. Once again, openness indicated a suppression effect.

Wave 1 Regression Summary. When all personality traits were included simultaneously in the models (see Model 7 in Tables 2 through 12), agreeableness most consistently predicted religion. High levels of agreeableness were associated with increased religion for all religion dependent variables except for preference for individuals of the same religion and the importance of marrying within the same religion (in fact, none of the five personality traits were statistically significant predictors of these two religion dependent variables). This means that agreeable people were more likely to feel religious and spiritual, describe religion and spirituality as being important in life, find it important to send children for religious instruction, identify strongly with a particular religious group, use religion/religious beliefs to cope with problems, use religion/religious beliefs to make decisions, and to attend religious services regularly. These results are consistent with hypothesis H_4 that predicted that high levels of agreeableness would be associated with high levels of religion. This is also consistent with previous psychological literature that has also shown agreeableness to be the strongest predictor of religion.

Openness positively predicted how spiritual an individual feels and importance of spirituality. Openness negatively predicted importance of religion, identifying with a religious

group, and religious attendance. This means that individuals who are open are more likely to feel spiritual and rate spirituality as being important in one's life, but are less likely to describe religion as being important in one's life, identify with a specific religious group of people, or to regularly attend religious services. This provides only minimal support for hypothesis H_1 that predicted openness to have an overall positive association with religion. This analysis shows openness to more consistently have a negative association with dimensions of religion. Also of note is that these analyses often show a suppression effect with the personality trait openness. This suggests that personality traits are not entirely unique and uncorrelated; the inclusion of at least one other personality trait in the model improves the predictive power of openness.

Extraversion positively predicted importance of religion, how strongly one identifies with a religious group, and attendance at religious services. This means that extroverted individuals were more likely to rate religion as being important in one's life, identify with a particular religious group, and to attend religious services regularly. The effects for extraversion were consistent with the hypothesis H_3 that predicted that high levels of extraversion would be associated with high levels of religion. However, different from previous literature, extraversion was only a significant predictor for three of eleven religion dependent variables. Previous literature would suggest extraversion to more consistently predict religion outcomes.

The least consistent personality correlates of religion were conscientiousness and neuroticism. Conscientiousness positively predicted how spiritual one reported feeling. This means that conscientious individuals are more likely to feel highly spiritual. This is largely inconsistent with hypothesis H_2 that predicted conscientiousness to positively predict religion; conscientiousness was only a significant predictor for one of eleven religion dependent variables.

In terms of neuroticism, there were no statistically significant findings; this is inconsistent with hypothesis H_5 that predicted neuroticism to show a consistent negative association with religion.

Variation in religion overall can be partially explained by personality. The most amount of variance explained was in regards to religious importance. Approximately 34.6% of the variation in religious importance can be explained by personality. The least amount of variance explained was in regards to how spiritual an individual reported feeling and how important it is to marry within the same religion. Approximately 14.3% of the variation of both these religion dependent variables can be explained by personality. Overall, a small portion of the variation in religion can be attributed to the five personality traits included in these analyses. This shows that personality is an important correlate of religion that should be included in future research. However, the variation also indicates that there is still much to investigate in terms of what fully predicts religion outcomes.

Personality Predicting Religion at Wave II

Tables 13 through 23 present Ordinary Least Squares regressions of religion on personality using Wave II data. Although not discussed below, these regression analyses control for race, sex, employment, marital status, age, and religious denomination.

Table 13. OLS Regression of How Religious by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.066	-0.056	-0.062	-0.063	-0.063	-0.067	-0.061
	(0.073)	(0.073)	(0.073)	(0.072)	(0.072)	(0.073)	(0.072)
Other Protestant	-0.080	-0.070	-0.073	-0.076	-0.078	-0.079	-0.083
	(0.058)	(0.057)	(0.058)	(0.057)	(0.057)	(0.058)	(0.057)
Baptist	0.158*	0.170**	0.159*	0.158*	0.158*	0.158*	0.162*
	(0.066)	(0.065)	(0.065)	(0.065)	(0.065)	(0.066)	(0.065)
Lutheran	0.004	0.014	0.011	0.013	0.012	0.005	0.009
	(0.081)	(0.080)	(0.081)	(0.080)	(0.080)	(0.081)	(0.080)
Methodist	-0.228**	-0.214**	-0.224**	-0.220**	-0.221**	-0.226**	-0.219**
	(0.080)	(0.079)	(0.080)	(0.079)	(0.079)	(0.080)	(0.079)
No Religion	-1.159***	-1.163***	-1.152***	-1.140***	-1.128***	-1.158***	-1.136***
	(0.063)	(0.063)	(0.063)	(0.063)	(0.063)	(0.063)	(0.063)
Openness		0.100***					0.041
		(0.025)					(0.032)
Conscientiousness			0.067*				-0.070
			(0.034)				(0.041)
Extraversion				0.135***			0.043
				(0.028)			(0.041)
Agreeableness					0.193***		0.171***
					(0.033)		(0.047)
Neuroticism						0.012	-0.016
						(0.026)	(0.027)
Constant	2.689***	2.433***	2.481***	2.290***	2.101***	2.655***	2.197***
	(0.140)	(0.153)	(0.174)	(0.162)	(0.171)	(0.160)	(0.189)
R-squared	0.284	0.291	0.285	0.294	0.300	0.283	0.300
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 14. OLS Regression of How Spiritual by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.021	-0.009	-0.016	-0.017	-0.018	-0.020	-0.011
	(0.071)	(0.071)	(0.071)	(0.070)	(0.070)	(0.071)	(0.070)
Other Protestant	0.113*	0.126*	0.124*	0.118*	0.116*	0.111*	0.105
	(0.056)	(0.056)	(0.056)	(0.056)	(0.055)	(0.056)	(0.055)
Baptist	0.215***	0.231***	0.217***	0.215***	0.216***	0.215***	0.220***
	(0.064)	(0.063)	(0.064)	(0.063)	(0.063)	(0.064)	(0.063)
Lutheran	0.066	0.078	0.075	0.077	0.076	0.064	0.069
	(0.079)	(0.078)	(0.079)	(0.078)	(0.077)	(0.079)	(0.077)
Methodist	-0.102	-0.085	-0.097	-0.093	-0.093	-0.103	-0.094
	(0.078)	(0.077)	(0.078)	(0.077)	(0.076)	(0.078)	(0.076)
No Religion	-0.511***	-0.515***	-0.502***	-0.488***	-0.470***	-0.512***	-0.482***
	(0.062)	(0.061)	(0.061)	(0.061)	(0.060)	(0.062)	(0.061)
Openness		0.126***					0.056
		(0.024)					(0.031)
Conscientiousness			0.090**				-0.076
			(0.033)				(0.040)
Extraversion				0.161***			0.022
				(0.027)			(0.039)
Agreeableness					0.254***		0.252***
					(0.032)		(0.045)
Neuroticism						-0.014	-0.054*
						(0.026)	(0.026)
Constant	2.974***	2.650***	2.695***	2.498***	2.198***	3.015***	2.391***
	(0.137)	(0.149)	(0.170)	(0.158)	(0.166)	(0.156)	(0.182)
R-squared	0.122	0.138	0.126	0.142	0.158	0.122	0.163
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Tables 13 through 14 show *degree of religion* dependent variables. In Table 13, all personality traits except neuroticism individually predicted how religious respondents felt (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 13), only agreeableness remained an important predictor. Specifically, high levels of agreeableness were associated with describing oneself as feeling highly religious. This effect was consistent with Wave I analyses. In Table 14, all personality traits except neuroticism individually predicted how spiritual respondents felt (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 14), both agreeableness and neuroticism were important predictors. Specifically, high levels of agreeableness and low levels of neuroticism were associated with describing oneself as feeling highly spiritual. The effect for neuroticism indicates a suppression effect; this means that the inclusion of at least one other personality trait improved the predictive power of neuroticism. The effect for agreeableness was consistent with Wave I analyses; the effect for neuroticism was inconsistent with Wave I analyses. However, openness and extraversion were inconsistent with Wave I analyses in which they were both statistically significant predictors.

Table 15. OLS Regression of Religion Importance by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.183*	-0.176*	-0.179*	-0.180*	-0.181*	-0.184*	-0.182*
	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)
Other Protestant	-0.082	-0.076	-0.074	-0.078	-0.080	-0.080	-0.086
	(0.059)	(0.059)	(0.059)	(0.058)	(0.058)	(0.059)	(0.059)
Baptist	0.130	0.139*	0.132*	0.130	0.131*	0.131	0.128
	(0.067)	(0.067)	(0.067)	(0.066)	(0.066)	(0.067)	(0.066)
Lutheran	0.013	0.020	0.021	0.023	0.021	0.015	0.018
	(0.082)	(0.082)	(0.082)	(0.082)	(0.081)	(0.082)	(0.081)
Methodist	-0.273***	-0.264**	-0.269***	-0.265**	-0.266***	-0.271***	-0.268***
	(0.081)	(0.081)	(0.081)	(0.081)	(0.081)	(0.081)	(0.081)
No Religion	-1.483***	-1.485***	-1.475***	-1.464***	-1.453***	-1.481***	-1.451***
	(0.064)	(0.064)	(0.064)	(0.064)	(0.064)	(0.064)	(0.064)
Openness		0.067**					-0.013
		(0.025)					(0.032)
Conscientiousness			0.075*				-0.038
			(0.034)				(0.042)
Extraversion				0.131***			0.062
				(0.029)			(0.042)
Agreeableness					0.186***		0.169***
					(0.034)		(0.048)
Neuroticism						0.014	-0.012
						(0.027)	(0.028)
Constant	2.995***	2.824***	2.763***	2.607***	2.427***	2.955***	2.480***
	(0.143)	(0.157)	(0.178)	(0.165)	(0.175)	(0.163)	(0.193)
R-squared	0.383	0.385	0.384	0.391	0.395	0.382	0.394
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Tables 15 through 17 show the *importance of religion* dependent variables. In Table 15, all personality traits except neuroticism individually predicted the importance of religion in respondents' lives (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 15), only agreeableness was an important predictor. Specifically, high levels of agreeableness were associated with reporting religion to be highly important in one's life. The effect for agreeableness was consistent with Wave I analyses. However, in this model, openness and extraversion were only statistically significant predictors when introduced individually in the model, and not when all five personality traits were introduced simultaneously, which is inconsistent with Wave I analyses.

Table 16. OLS Regression of Spirituality Importance by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.084	-0.074	-0.080	-0.080	-0.081	-0.083	-0.077
	(0.074)	(0.073)	(0.074)	(0.073)	(0.072)	(0.074)	(0.072)
Other Protestant	0.116*	0.126*	0.124*	0.120*	0.118*	0.114	0.107
	(0.058)	(0.058)	(0.058)	(0.058)	(0.057)	(0.058)	(0.058)
Baptist	0.166*	0.179**	0.168*	0.166*	0.167*	0.166*	0.169**
	(0.066)	(0.066)	(0.066)	(0.066)	(0.065)	(0.066)	(0.065)
Lutheran	0.034	0.043	0.041	0.043	0.043	0.033	0.035
	(0.081)	(0.081)	(0.081)	(0.081)	(0.080)	(0.082)	(0.080)
Methodist	-0.066	-0.052	-0.062	-0.058	-0.058	-0.067	-0.061
	(0.081)	(0.080)	(0.081)	(0.080)	(0.079)	(0.081)	(0.079)
No Religion	-0.684***	-0.688***	-0.677***	-0.665***	-0.646***	-0.685***	-0.655***
	(0.064)	(0.063)	(0.064)	(0.063)	(0.063)	(0.064)	(0.063)
Openness		0.103***					0.035
		(0.025)					(0.032)
Conscientiousness			0.074*				-0.077
			(0.034)				(0.042)
Extraversion				0.139***			0.008
				(0.029)			(0.041)
Agreeableness					0.239***		0.261***
					(0.033)		(0.047)
Neuroticism						-0.009	-0.045
						(0.027)	(0.027)
Constant	3.131***	2.868***	2.903***	2.720***	2.400***	3.158***	2.594***
	(0.142)	(0.155)	(0.176)	(0.164)	(0.172)	(0.162)	(0.190)
R-squared	0.161	0.170	0.163	0.174	0.189	0.161	0.191
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 17. OLS Regression of Religious Instruction for Children by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.280***	-0.278***	-0.280***	-0.278***	-0.279***	-0.278***	-0.280***
	(0.077)	(0.077)	(0.077)	(0.077)	(0.077)	(0.077)	(0.077)
Other Protestant	-0.040	-0.038	-0.040	-0.038	-0.039	-0.044	-0.053
	(0.061)	(0.061)	(0.061)	(0.061)	(0.061)	(0.061)	(0.061)
Baptist	0.058	0.061	0.058	0.058	0.058	0.057	-0.053
	(0.069)	(0.069)	(0.069)	(0.069)	(0.069)	(0.069)	(0.069)
Lutheran	-0.011	-0.008	-0.010	-0.005	-0.006	-0.013	-0.015
	(0.085)	(0.085)	(0.085)	(0.085)	(0.085)	(0.085)	(0.085)
Methodist	-0.214*	-0.211*	-0.213*	-0.210*	-0.210*	-0.216*	-0.217**
	(0.084)	(0.084)	(0.084)	(0.084)	(0.084)	(0.084)	(0.084)
No Religion	-1.335***	-1.336***	-1.334***	-1.325***	-1.316***	-1.337***	-1.316***
	(0.067)	(0.067)	(0.067)	(0.067)	(0.066)	(0.067)	(0.067)
Openness		0.024					-0.020
		(0.026)					(0.034)
Conscientiousness			0.007				-0.069
			(0.035)				(0.044)
Extraversion				0.072*			0.032
				(0.030)			(0.043)
Agreeableness					0.120***		0.154**
					(0.035)		(0.050)
Neuroticism						-0.024	-0.038
						(0.028)	(0.029)
Constant	2.977***	2.916***	2.954***	2.764***	2.609***	3.048***	2.788***
	(0.148)	(0.162)	(0.184)	(0.172)	(0.182)	(0.169)	(0.201)
R-squared	0.295	0.295	0.295	0.298	0.301	0.295	0.302
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

In Table 16, all personality traits except neuroticism individually predicted the importance of spirituality in respondents' lives (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 16), only agreeableness was a statistically significant predictor. Specifically, high levels of agreeableness were associated with reporting spirituality as being highly important in one's life. The effect for agreeableness was consistent with Wave I analyses. Inconsistent with Wave I analyses, openness was not a statistically significant predictor when all personality traits were included simultaneously in the model. In Table 17, extraversion and agreeableness individually predicted how important one believed it is to send children for religious instruction (see Models 2 through 6). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 17), only agreeableness remained a statistically significant predictor. Specifically, high levels of agreeableness were associated with individuals agreeing it was important to send children for religious instruction. This was consistent with Wave I analyses. However, conscientiousness was also a statistically significant predictor when included individually in the model at Wave I, but not at Wave II (see Models 3 and 4 in Table 17).

Table 18. OLS Regression of Identify with Religious Group by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.325***	-0.322***	-0.325***	-0.322***	-0.323***	-0.320***	-0.323***
	(0.085)	(0.085)	(0.085)	(0.085)	(0.085)	(0.085)	(0.085)
Other Protestant	0.136*	0.140*	0.137*	0.141*	0.138*	0.128	0.115
	(0.068)	(0.068)	(0.068)	(0.067)	(0.067)	(0.068)	(0.067)
Baptist	0.174*	0.179*	0.174*	0.174*	0.175*	0.173*	0.166*
	(0.077)	(0.077)	(0.077)	(0.076)	(0.076)	(0.077)	(0.076)
Lutheran	0.040	0.044	0.040	0.049	0.046	0.034	0.033
	(0.094)	(0.094)	(0.094)	(0.094)	(0.094)	(0.094)	(0.094)
Methodist	-0.227*	-0.222*	-0.227*	-0.220*	-0.222*	-0.233*	-0.233*
	(0.094)	(0.094)	(0.094)	(0.093)	(0.093)	(0.093)	(0.093)
No Religion	-1.638***	-1.640***	-1.638***	-1.620***	-1.613***	-1.643***	-1.612***
	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)	(0.074)
Openness		0.037					-0.032
		(0.029)					(0.037)
Conscientiousness			0.005				-0.112*
			(0.039)				(0.049)
Extraversion				0.130***			0.109*
				(0.033)			(0.048)
Agreeableness					0.162***		0.173**
					(0.039)		(0.055)
Neuroticism						-0.053	-0.069*
						(0.031)	(0.032)
Constant	2.077***	1.981***	2.062***	1.691***	1.583***	2.232***	1.854***
	(0.164)	(0.180)	(0.204)	(0.190)	(0.202)	(0.187)	(0.222)
R-squared	0.375	0.375	0.375	0.381	0.382	0.376	0.387
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 19. OLS Regression of Prefer Same Religion People by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	0.106	0.108	0.105	0.107	0.107	0.104	0.102
	(0.092)	(0.092)	(0.092)	(0.092)	(0.092)	(0.092)	(0.092)
Other Protestant	0.427***	0.429***	0.425***	0.429***	0.428***	0.430***	0.422***
	(0.072)	(0.073)	(0.073)	(0.072)	(0.072)	(0.073)	(0.073)
Baptist	0.619***	0.622***	0.619***	0.619***	0.620***	0.620***	0.618***
	(0.082)	(0.082)	(0.082)	(0.082)	(0.082)	(0.082)	(0.082)
Lutheran	0.160	0.162	0.158	0.163	0.162	0.162	0.159
	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)	(0.101)
Methodist	0.045	0.048	0.043	0.047	0.047	0.047	0.047
	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)
No Religion	-0.880***	-0.880***	-0.881***	-0.873***	-0.868***	-0.878***	-0.869***
	(0.079)	(0.079)	(0.079)	(0.079)	(0.080)	(0.079)	(0.080)
Openness		0.023					0.004
		(0.031)					(0.040)
Conscientiousness			-0.020				-0.091
			(0.042)				(0.053)
Extraversion				0.049			0.037
				(0.036)			(0.052)
Agreeableness					0.070		0.080
					(0.042)		(0.060)
Neuroticism						0.021	0.018
						(0.033)	(0.034)
Constant	2.058***	1.998***	2.120***	1.913***	1.845***	1.997***	1.921***
	(0.176)	(0.194)	(0.219)	(0.205)	(0.218)	(0.201)	(0.240)
R-squared	0.216	0.216	0.216	0.217	0.217	0.216	0.217
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 20. OLS Regression of Marry Within Same Religion by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.255**	-0.259**	-0.259**	-0.255**	-0.255**	-0.253**	-0.261**
	(0.097)	(0.098)	(0.097)	(0.098)	(0.098)	(0.098)	(0.098)
Other Protestant	0.195*	0.191*	0.186*	0.195*	0.195*	0.192*	0.182*
	(0.077)	(0.077)	(0.077)	(0.077)	(0.077)	(0.077)	(0.078)
Baptist	0.286**	0.281**	0.285**	0.286**	0.286**	0.286**	0.279**
	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)
Lutheran	-0.264*	-0.268*	-0.272*	-0.265*	0.265*	-0.266*	-0.273*
	(0.108)	(0.108)	(0.108)	(0.108)	(0.108)	(0.108)	(0.108)
Methodist	-0.341**	-0.347**	-0.346**	-0.342**	-0.342**	-0.343**	-0.349**
	(0.107)	(0.107)	(0.107)	(0.107)	(0.107)	(0.107)	(0.107)
No Religion	-0.980***	-0.979***	-0.988***	-0.980***	-0.984***	-0.982***	-0.979***
	(0.084)	(0.084)	(0.084)	(0.085)	(0.085)	(0.084)	(0.085)
Openness		-0.040					-0.039
		(0.033)					(0.043)
Conscientiousness			-0.079				-0.089
			(0.045)				(0.056)
Extraversion				-0.002			0.060
				(0.038)			(0.055)
Agreeableness					-0.024		0.002
					(0.045)		(0.063)
Neuroticism						-0.018	-0.004
						(0.035)	(0.036)
Constant	2.015***	2.118***	2.259***	2.021***	2.089***	2.066***	2.217***
	(0.187)	(0.206)	(0.233)	(0.219)	(0.232)	(0.214)	(0.256)
R-squared	0.176	0.176	0.177	0.175	0.175	0.175	0.175
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Tables 18 through 20 show analyses for the *religious closure* dependent variables. In Table 18, both extraversion and agreeableness individually predicted how strongly respondents reported identifying with a particular religious group (see Models 2 through 6). However, once all five personality traits were introduced simultaneously in the model (see Model 7 in Table 18), conscientiousness, extraversion, agreeableness, and neuroticism were all statistically significant predictors. Specifically, low levels of conscientiousness, high levels of extraversion, high levels of agreeableness, and low levels of neuroticism were associated with identifying strongly with a particular religious group. The effects for extraversion and agreeableness are consistent with Wave I analyses. However, the effects for conscientiousness and neuroticism are inconsistent with Wave I analyses; neither were statistically significant predictors at Wave I. Furthermore, openness was a statistically significant predictor at Wave I, but is not an important predictor in Wave II analyses.

In Table 19, no personality traits predicted preference for individuals of the same religion (see Models 2 through 6). This remained true once all personality traits were included simultaneously in the model (see Model 7 in table 19). This is consistent with Wave I analyses. In Table 20, no personality traits predicted how respondents' described the importance of marrying someone of their same religion (see Models 2 through 6). This remained true once all personality traits were introduced simultaneously in the model (see Model 7 in Table 20). This result was consistent with Wave I analyses.

Table 21. OLS Regression of Religious Coping by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Race	-0.003	-0.003	-0.003	-0.005	-0.004	-0.003	-0.001
	(0.019)	(0.020)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Sex	0.495***	0.496***	0.492***	0.487***	0.440***	0.494***	0.422***
	(0.056)	(0.056)	(0.056)	(0.056)	(0.057)	(0.056)	(0.059)
Employment	-0.061	-0.061	-0.062	-0.061	-0.061	-0.060	-0.056
	(0.062)	(0.062)	(0.062)	(0.062)	(0.061)	(0.062)	(0.062)
Education	0.019	0.019	0.019	0.020	0.022	0.019	0.025*
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Formerly Married	0.043	0.041	0.044	0.039	0.034	0.043	0.039
	(0.068)	(0.068)	(0.068)	(0.067)	(0.067)	(0.068)	(0.068)
Never Married	0.028	0.025	0.027	0.021	0.011	0.028	0.021
	(0.111)	(0.111)	(0.111)	(0.111)	(0.110)	(0.111)	(0.111)
Age	-0.000	-0.000	-0.000	-0.000	-0.001	-0.000	-0.002
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
NA Protestant	-0.029	-0.028	-0.028	-0.027	-0.027	-0.029	-0.033
	(0.102)	(0.102)	(0.102)	(0.101)	(0.101)	(0.102)	(0.101)
Other Protestant	0.156	0.157	0.159*	0.158*	0.158*	0.156	0.142
	(0.080)	(0.080)	(0.081)	(0.080)	(0.080)	(0.081)	(0.080)
Baptist	0.285**	0.287**	0.286**	0.285**	0.286**	0.285**	0.277**
	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)
Lutheran	-0.011	-0.010	-0.008	-0.005	-0.004	-0.010	-0.015
	(0.112)	(0.112)	(0.112)	(0.112)	(0.112)	(0.112)	(0.112)
Methodist	-0.135	-0.134	-0.134	-0.131	-0.129	-0.135	-0.140
	(0.111)	(0.111)	(0.111)	(0.111)	(0.111)	(0.111)	(0.111)
No Religion	-1.071***	-1.072***	-1.069***	-1.061***	-1.043***	-1.071***	-1.037***
	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)	(0.088)
Openness		0.011					-0.058
		(0.035)					(0.044)
Conscientiousness			0.022				-0.069
			(0.047)				(0.058)
Extraversion				0.075			-0.003
				(0.040)			(0.057)
Agreeableness					0.179***		0.260***
					(0.046)		(0.066)
Neuroticism						0.002	-0.018
						(0.037)	(0.038)
Constant	2.626***	2.597***	2.558***	2.406***	2.081***	2.621***	2.255***
	(0.195)	(0.215)	(0.243)	(0.227)	(0.240)	(0.223)	(0.265)
R-squared	0.193	0.193	0.193	0.195	0.201	0.193	0.201
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 22. OLS Regression of Religious Decision Making by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Race	0.017	0.014	0.018	0.016	0.016	0.017	0.015
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Sex	0.355***	0.361***	0.357***	0.349***	0.316***	0.353***	0.326***
	(0.055)	(0.055)	(0.055)	(0.055)	(0.057)	(0.056)	(0.058)
Employment	-0.117	-0.118	-0.115	-0.117	-0.117	-0.116	-0.107
	(0.061)	(0.061)	(0.061)	(0.061)	(0.061)	(0.061)	(0.061)
Education	0.025*	0.023*	0.025*	0.026*	0.027*	0.025*	0.027*
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Formerly Married	0.008	-0.003	0.007	0.004	0.001	0.007	-0.012
	(0.067)	(0.067)	(0.067)	(0.067)	(0.067)	(0.067)	(0.067)
Never Married	0.015	-0.002	0.016	0.010	0.003	0.015	-0.010
	(0.110)	(0.110)	(0.110)	(0.110)	(0.110)	(0.110)	(0.110)
Age	-0.000	-0.000	-0.000	-0.000	-0.001	-0.000	-0.001
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
NA Protestant	0.076	0.083	0.075	0.077	0.078	0.075	0.077
	(0.100)	(0.100)	(0.100)	(0.100)	(0.100)	(0.101)	(0.100)
Other Protestant	0.333***	0.339***	0.330***	0.335***	0.334***	0.334***	0.323***
	(0.079)	(0.079)	(0.080)	(0.079)	(0.079)	(0.080)	(0.080)
Baptist	0.376***	0.384***	0.375***	0.376***	0.376***	0.376***	0.381***
	(0.090)	(0.090)	(0.090)	(0.090)	(0.090)	(0.090)	(0.090)
Lutheran	0.064	0.070	0.061	0.068	0.069	0.065	0.061
	(0.111)	(0.111)	(0.111)	(0.111)	(0.111)	(0.111)	(0.111)
Methodist	-0.165	-0.156	-0.166	-0.162	-0.160	-0.164	-0.160
	(0.110)	(0.110)	(0.110)	(0.110)	(0.110)	(0.110)	(0.110)
No Religion	-0.890***	-0.893***	-0.892***	-0.882***	-0.870***	-0.889***	-0.882***
	(0.087)	(0.087)	(0.087)	(0.087)	(0.087)	(0.087)	(0.087)
Openness		0.068*					0.064
		(0.034)					(0.044)
Conscientiousness			-0.023				-0.141*
			(0.046)				(0.058)
Extraversion				0.057			-0.023
				(0.039)			(0.057)
Agreeableness					0.127**		0.175**
					(0.046)		(0.065)
Neuroticism						0.008	-0.006
						(0.036)	(0.037)
Constant	2.422***	2.248***	2.494***	2.252***	2.034***	2.398***	2.244***
	(0.193)	(0.212)	(0.240)	(0.225)	(0.238)	(0.221)	(0.262)
R-squared	0.168	0.169	0.167	0.168	0.171	0.167	0.173
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Tables 21 and 22 show analyses for the *religious strategies* dependent variables. In Table 21, only agreeableness individually predicted how much individuals sought comfort in religion during times of conflict (see Models 2 through 6). This remained true when all five personality traits were included simultaneously in the model (see Model 7 in Table 21). Specifically, high levels of agreeableness were associated with reporting to actively seek comfort in religion during times of conflict. This effect was consistent with Wave I analyses. However, extraversion was an important predictor when included individually in the model at Wave I, but was not a statistically significant predictor when included individually in the model at Wave II (see Models 2 and 4 in Table 21). In Table 22, openness and agreeableness both individually predicted how much individuals turned to religious beliefs to make decisions (see Models 2 through 6). This was inconsistent with Wave I analyses; at Wave I, extraversion was also an individually significant predictor (see Models 2 and 4 in Table 22). However, once all five personality traits were included simultaneously in the model (see Model 7 in Table 22), conscientiousness and agreeableness and were statistically significant predictors. Specifically, low levels of conscientiousness and high levels of agreeableness were both associated with respondents reporting they often used religious beliefs to make decisions. The effect for agreeableness was consistent with Wave I analyses; however, the effect for conscientiousness was inconsistent with Wave I analyses.

Table 23. OLS Regression of Religious Attendance by Five-Factor Personality Traits and Controls at Wave II

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
NA Protestant	-0.521***	-0.524***	-0.524***	-0.521***	-0.521***	-0.519***	-0.526***
	(0.105)	(0.105)	(0.105)	(0.105)	(0.105)	(0.105)	(0.105)
Other Protestant	-0.111	-0.113	-0.117	-0.110	-0.110	-0.114	-0.125
	(0.083)	(0.083)	(0.083)	(0.083)	(0.083)	(0.083)	(0.084)
Baptist	-0.201*	-0.204*	-0.202*	-0.201*	-0.201*	-0.202*	-0.208*
	(0.094)	(0.095)	(0.094)	(0.094)	(0.094)	(0.094)	(0.095)
Lutheran	0.031	0.028	0.025	0.032	0.032	0.028	0.022
	(0.116)	(0.116)	(0.116)	(0.116)	(0.116)	(0.116)	(0.116)
Methodist	-0.399***	-0.403***	-0.402***	-0.399***	-0.398***	-0.402***	-0.406***
	(0.115)	(0.115)	(0.115)	(0.115)	(0.115)	(0.115)	(0.115)
No Religion	-1.490***	-1.489***	-1.496***	-1.488***	-1.486***	-1.492***	-1.483***
	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)	(0.091)	(0.092)
Openness		-0.026					-0.037
		(0.036)					(0.046)
Conscientiousness			-0.057				-0.086
			(0.048)				(0.060)
Extraversion				0.012			0.033
				(0.041)			(0.060)
Agreeableness					0.025		0.072
					(0.048)		(0.068)
Neuroticism						-0.023	-0.018
						(0.038)	(0.039)
Constant	2.007***	2.074***	2.184***	1.973***	1.932***	2.074***	2.101***
	(0.202)	(0.222)	(0.251)	(0.235)	(0.250)	(0.231)	(0.275)
R-squared	0.212	0.212	0.213	0.212	0.212	0.212	0.212
N	1465	1465	1465	1465	1465	1465	1465

* p<0.05, ** p<0.01, ***p<0.001

Table 23 shows analyses for the *religious attendance* dependent variable. When introduced individually in the model, no personality trait predicted how often respondents attended religious services (see Models 2 through 6). This was inconsistent with Wave I analyses; in Wave I, extraversion and agreeableness were both statistically significant predictors individually in the model (see Model 4 in Table 23). Once all five personality traits were included simultaneously in the model, there were still no statistically significant predictors (see Model 7 in Table 23). This is also inconsistent with Wave 1 analyses; at Wave I openness and agreeableness were both statistically significant predictors of religious attendance when included simultaneously in the model.

Wave 2 Regression Summary. When all personality traits were included simultaneously in the models (see Model 7 in Tables 13 through 23), agreeableness most consistently predicted religion. This is consistent with Wave I analyses. High levels of agreeableness were associated with increased religion for all religion dependent variables except for how strongly one prefers to interact with others of the same religion (consistent with Wave I), the importance of marrying within the same religion (consistent with Wave I), and attendance at religious services (inconsistent with Wave I). Therefore, this finding is overall consistent with Wave I findings and hypothesis H_4 that predicted a positive association with the exception of religious attendance. This suggests that highly agreeable people are more likely to regularly attend religious services at earlier stages of life than at later stages of life.

Inconsistent with Wave I analyses, conscientiousness was the next most frequent predictor of religion at Wave II. Low levels of conscientiousness were associated with identifying strongly with a particular religious group, seeking comfort in religion during times of conflict, and using religious beliefs to make decisions. This suggests that later in life

conscientiousness is negatively predictive of religion. These findings were inconsistent with hypothesis H_2 that predicted that conscientiousness would have an overall positive association with religion. These results were also inconsistent with Wave I analyses in which conscientiousness was only associated with how spiritual an individual felt, and this association was positive.

Inconsistent with Wave I analyses, neuroticism was a predictor of some aspects of religion at Wave II. Low levels of neuroticism were negatively associated with describing oneself as feeling highly spiritual and identifying strongly with a particular religious group. While this offers some support for hypothesis H_5 that predicts neuroticism to have a negative association with religion, it is inconsistent with Wave I analyses in which neuroticism was not a statistically significant predictor of any religion dependent variable. This discrepancy between Wave I and Wave II analyses suggests that the power of neuroticism in predicting religion becomes stronger as people age. In terms of the personality trait extraversion, extraversion positively predicted how strongly one identified with a particular religious group. This provides only a small amount of support for hypothesis H_3 and was consistent with Wave I analyses; however, extraversion also predicted the importance of religion in one's life and religious attendance at Wave I, which provided more support for hypothesis H_3.

Furthermore, openness positively predicted how spiritual an individual reported oneself as feeling and the importance of spirituality in one's life at Wave I. Openness was also negatively associated with the importance of religion in one's life, how strongly one identifies with a particular religious group, and attendance at religious services at Wave I. This provided minimal and conflicting support for hypothesis H_1. However, openness was not a statistically significant

predictor of any religion dependent variable at Wave II. This suggests that openness loses its predictive power in predicting religion outcomes as respondents age.

Overall, Wave II analyses show many differences from Wave I analyses. Personality, as defined by psychologists, should be stable and unchanging over the life course. Therefore, in order to support this argument, Wave I and Wave II analyses should show relatively similar effects. However, many personality traits that were important predictors of religion at Wave I were not statistically significant predictors at Wave II. Likewise, many personality traits that were not important predictors of religion at Wave I became statistically significant at Wave II. These discrepancies in personality predicting religion at two different points in time suggest that personality is not entirely genetic or biologically determined. This analysis provides considerable evidence that it is actually more malleable than what is suggested by psychologists.

Lagged Regression Analyses: Religion Predicting Changes in Personality

In order to unpack the relationship between personality and religion even further and address hypotheses H_6 and H_7, a lagged Ordinary Least Squares regression model was used to investigate how religion predicts changes in personality over time (see Table 24a through Table 24e). Model 1 for each of the five personality traits investigates how previous levels of religion (i.e., religion at Wave I) predict later levels of a given personality trait (i.e., personality at Wave II). Model 2 for each of the five personality traits investigates how changes in a given personality trait at Wave II are predicted by previous levels of personality and religion (i.e., personality and religion at Wave I). These models are substantively important because psychological literature suggests that personality is stable as people age, and thus there should be little (if any) change in personality traits over time. However, the discrepancies in personality

predicting religion in the separate Wave I and Wave II Ordinary Least Squares regression analyses suggests that personality might actually be more malleable than what is argued by the discipline of psychology. As such, these models are also substantively important because statistically significant effects in these analyses would provide substantial evidence for the sociologically guided argument that the social environment can influence individual differences in personality.

Table 24a. Lagged Ordinary Least Squares Regression for Openness

	Openness	
	Model 1	Model 2
How Religious	-0.024	-0.020
	(0.047)	(0.042)
How Spiritual	0.141**	0.063
	(0.048)	(0.043)
Religion Importance	0.026	0.043
	(0.047)	(0.042)
Spirituality Importance	-0.013	-0.026
	(0.049)	(0.044)
Religious Instruction for Children	-0.018	-0.027
	(0.034)	(0.030)
Identify with Group	0.020	-0.002
	(0.036)	(0.032)
Prefer Same People	0.031	0.029
	(0.031)	(0.028)
Marry Same Religion	-0.067*	-0.040
	(0.027)	(0.024)
Religious Coping	-0.040	-0.026
	(0.031)	(0.027)
Religious Decision-Making	0.026	0.005
	(0.032)	(0.029)
Religious Attendance	-0.032	-0.003
	(0.025)	(0.022)
Childhood Religion	0.031	-0.008
	(0.027)	(0.024)
Openness		0.702***
		(0.037)
Constant	2.190***	0.515**
	(0.184)	(0.188)
R-squared	0.045	0.233
N	1463	1463

* p<0.05, ** p<0.01, *** p<0.001

Table 24b. Lagged Ordinary Least Squares Regression for Conscientiousness

	Conscientiousness	
	Model 1	Model 2
How Religious	0.003	-0.002
	(0.035)	(0.031)
How Spiritual	0.092*	0.044
	(0.036)	(0.032)
Religion Importance	0.056	0.047
	(0.035)	(0.031)
Spirituality Importance	-0.052	-0.051
	(0.037)	(0.032)
Religious Instruction for Children	0.012	0.005
	(0.025)	(0.022)
Identify with Group	0.028	0.009
	(0.027)	(0.024)
Prefer Same People	-0.042	-0.025
	(0.023)	(0.021)
Marry Same Religion	-0.023	-0.010
	(0.020)	(0.018)
Religious Coping	-0.021	-0.014
	(0.023)	(0.020)
Religious Decision-Making	-0.010	-0.003
	(0.024)	(0.021)
Religious Attendance	-0.003	0.010
	(0.018)	(0.016)
Childhood Religion	0.032	0.003
	(0.020)	(0.018)
Conscientiousness		0.617***
		(0.031)
Constant	2.873***	1.086***
	(0.137)	(0.150)
R-squared	0.029	0.241
N	1463	1463

* p<0.05, ** p<0.01, *** p<0.001

Table 24c. Lagged Ordinary Least Squares Regression for Extraversion

	Extraversion	
	Model 1	Model 2
How Religious	-0.041	-0.035
	(0.041)	(0.034)
How Spiritual	0.119**	0.073*
	(0.042)	(0.035)
Religion Importance	0.115**	0.088*
	(0.041)	(0.034)
Spirituality Importance	-0.010	-0.033
	(0.043)	(0.035)
Religious Instruction for Children	-0.013	-0.026
	(0.029)	(0.024)
Identify with Group	0.071*	0.001
	(0.031)	(0.026)
Prefer Same People	0.000	0.016
	(0.027)	(0.023)
Marry Same Religion	-0.049*	-0.018
	(0.023)	(0.019)
Religious Coping	-0.047	-0.027
	(0.027)	(0.022)
Religious Decision-Making	-0.013	0.005
	(0.028)	(0.023)
Religious Attendance	-0.021	-0.013
	(0.022)	(0.018)
Childhood Religion	0.033	-0.003
	(0.024)	(0.020)
Extraversion		0.692***
		(0.027)
Constant	2.396***	0.515***
	(0.161)	(0.152)
R-squared	0.048	0.347
N	1463	1463

* p<0.05, ** p<0.01, *** p<0.001

Table 24d. Lagged Ordinary Least Squares Regression for Agreeableness

	Agreeableness	
	Model 1	Model 2
How Religious	-0.007	-0.013
	(0.035)	(0.031)
How Spiritual	0.076*	0.053
	(0.035)	(0.032)
Religion Importance	0.081*	0.045
	(0.035)	(0.031)
Spirituality Importance	0.004	-0.016
	(0.036)	(0.032)
Religious Instruction for Children	0.004	-0.013
	(0.025)	(0.022)
Identify with Group	0.045	0.021
	(0.026)	(0.024)
Prefer Same People	-0.004	0.003
	(0.023)	(0.021)
Marry Same Religion	-0.066***	-0.034
	(0.020)	(0.018)
Religious Coping	-0.006	-0.010
	(0.023)	(0.020)
Religious Decision-Making	0.018	0.006
	(0.024)	(0.021)
Religious Attendance	-0.022	-0.005
	(0.018)	(0.016)
Childhood Religion	0.023	0.003
	(0.020)	(0.018)
Agreeableness		0.577***
		(0.030)
Constant	2.624***	0.989***
	(0.136)	(0.147)
R-squared	0.129	0.312
N	1463	1463

* p<0.05, ** p<0.01, *** p<0.001

Table 24e. Lagged Ordinary Least Squares Regression for Neuroticism

	Neuroticism	
	Model 1	Model 2
How Religious	0.062	0.046
	(0.039)	(0.045)
How Spiritual	-0.047	-0.044
	(0.040)	(0.046)
Religion Importance	-0.031	0.002
	(0.039)	(0.045)
Spirituality Importance	0.024	0.008
	(0.041)	(0.047)
Religious Instruction for Children	-0.030	-0.013
	(0.028)	(0.032)
Identify with Group	0.017	-0.024
	(0.030)	(0.034)
Prefer Same People	0.020	0.024
	(0.026)	(0.030)
Marry Same Religion	-0.037	-0.009
	(0.022)	(0.026)
Religious Coping	0.042	0.053
	(0.026)	(0.029)
Religious Decision-Making	-0.011	0.003
	(0.027)	(0.031)
Religious Attendance	-0.022	-0.041
	(0.021)	(0.024)
Childhood Religion	0.019	0.001
	(0.023)	0.026
Neuroticism		0.561***
		(0.026)
Constant	2.804***	1.095***
	(0.176)	(0.173)
R-squared	0.055	0.283
N	1463	1463

* p<0.05, ** p<0.01, *** p<0.001

First of note in this analysis is the absence of a direct effect for childhood religion. Despite theoretical evidence for a relationship between childhood religion and adult religion, bivariate analyses (not shown) does not support this claim. No correlation between childhood religion and any of the adult religion variables was larger than 0.30. Therefore, despite strong theoretical evidence that childhood religion impacts later levels of religion, analysis in these models show an absence of such an association.

In terms of the lagged regression results, there is sparse statistical significance in these models. Only ten of sixty variables are statistically significant in Model 1 for each personality trait; only six out of sixty-five variables are statistically significant in Model 2 for each personality trait. The more frequent statistical significance in Model 1 provides stronger evidence for this model to work more consistently for each personality trait than in Model 2 for each personality trait. This provides modest support for hypothesis H_6 that prior religion can predict current personality (see Models 1 in Table 24). It also provides modest support for hypothesis H_7 which hypothesized that prior religion can predict changes in personality (see Models 2 in Table 24). If personality were not subject to change by the social environment, we would expect to see no statistical significance in these models at all.

Furthermore, in order to be consistent with the argument set forth by psychologists that personality is unchanging over the life course, much (if not all) of the variation in each personality trait should be explained in Model 2. This is because if personality were unchanging, using personality at Wave I to predict personality at Wave II should account for a large portion of the variation. However, only 23% of the variation in openness was explained, 24% of the variation in conscientiousness, 35% of the variation in extraversion, 31% of the variation in agreeableness, and 28% of the variation in neuroticism. This suggests that personality is not

stable and actually changes over the life course. This is so because personality at one stage of life is insufficient in predicting personality at another stage of life. Furthermore, it gives evidence for the influence of social environment (and not just biology or genetics) on individual personality traits because, in essence, an individual's personality at one stage in life is not identical to personality at later stages in life. These results give strong support for the importance of the influence of the social environment in the relationship between personality and religion.

Furthermore, the lagged regression analyses also suggest that spirituality, importance of religion, and marry within the same religion are the religion variables that are most strongly associated with changes in personality. Spirituality predicted changes in openness, conscientiousness, extraversion, and agreeableness. Importance of religion in one's life predicted changes in extraversion and agreeableness. The importance of marrying within the same religion predicted changes in openness, extraversion, and agreeableness. Furthermore, it should also be noted that there are some effects in Model 1 that are attenuated in Model 2. For example, early feelings of spirituality predict later levels of conscientiousness in Model 1. However, once conscientiousness at Wave I is added to the model, it is no longer statistically significant (see Conscientiousness Model 2 in Table 24). This provides evidence that the causal direction is actually the reverse of what is suggested by psychologists: feelings of spirituality can influence later levels of the personality trait conscientiousness. A similar effect is seen with agreeableness; early levels of spirituality influence later levels of agreeableness for individuals. Furthermore, this can also be seen in regards to how important one believes it to be to marry within the same religion: this belief influences later levels of openness, extraversion, and agreeableness. These findings suggest that certain aspects of religion (i.e., elements of the social

environment) can be instrumental in influencing individual differences instead of individual differences solely impacting the social environment.

DISCUSSION

House (1977) describes benefits of examining the relationship between the social environment (i.e., social structure) and individual personality. Terming the study of such a relationship "psychological sociology," he considered this to be one of three important "faces" of social psychology to be investigated in future empirical research (House 1977). However, he noted that studies linking the individual and the social environment are often isolated in one, but not both, of the parent disciplines of sociology and psychology. In other words, the influence of the social environment is an idea supported heavily by sociologists, but little by psychologists. Furthermore, those sociologists who have examined the relationship between the individual and the social environment have focused mostly on broad social processes such as stratification or modernization. As such, he writes that "it leaves the interpersonal and psychological processes of influence still largely unanalyzed" (House 1977: 172). In other words, House (1977) called for a more thorough, integrative, and interdisciplinary approach to investigating the relationship between individual personality and the social environment.

The study of personality and religion has not been immune to the problems identified by House (1977). Since such studies have been confined largely to research in psychology, the study of personality and religion has been unsystematic, narrow-minded, and non-generalizable. For decades, psychologists exploring the relationship between personality and religion have continued to incorrectly specify the relationship by neglecting the possibility of the influence by the social environment. In doing so, they have missed the opportunity to study how the social

environment (i.e., religion) can affect individual personality and individual personality can affect the social environment. Specifically, such neglect has taken granted the causal direction of the relationship between personality and religion; therefore, the relationship between personality and religion has not been fully or correctly verified in previous studies. As such, scholars have missed a crucial piece of the puzzle in regards to studies of personality and religion.

Therefore, this manuscript sought to improve upon previous studies and examined how and under what conditions personality and religion were connected. By doing so, I sought to better specify and understand the relationship between personality and religion, with particular attention to those areas that have been neglected by prior psychological research. If one accepts the perspective of a psychologist, personality would be stable and unchanging over the life course in terms of how it relates to religion. However, from the perspective of a sociologist, the social environment is a crucial piece to the puzzle (House 1977); guided by this perspective, personality would be both malleable and influenced by the social environment. Overall, analyses from this manuscript provide substantial evidence for the influence of the social environment. Therefore, it is suggested that both the perspective of psychology and that of sociology can both be integral in explaining the reciprocal relationship between the social environment and individual differences. However, in order to do so, future studies of personality and religion must take an interdisciplinary approach and begin to include a sociological perspective when investigating the relationship.

This study has shown the importance of employing a sociological perspective when investigating the relationship between personality and religion in several ways. First, and perhaps most importantly, a sociological perspective called for an investigation into the causal direction of the relationship. Adopting the perspective of a psychologist, one would

automatically accept that personality affects religion, and that the relationship is unidirectional and unchanging. However, this manuscript shows that while this is true, personality can also be affected *by* religion. Specifically, there is considerable evidence that early levels of adult religion (i.e., religion at earlier stages in life) actually predict later levels of individual personality (i.e., personality at later stages in life). Furthermore, while personality is certainly a statistically significant predictor of religion, the relationship is not stable across the life course as would be suggested by psychologists. Personality's influence on religion changes significantly over time and as people age. Some personality traits influence religion more at later stages of life than earlier stages; others influence religion more at earlier stages of life and become insignificant predictors of religion at later stages. Therefore, it can be argued that the relationship between personality and religion depends largely on the age or life stage of the individual. Last, the sociological perspective allowed for this present study to investigate how personality might affect different dimensions of religion in different ways. In other words, it allowed for the possibility that personality might predict some aspect of religion, but not others. Therefore, the use of the sociological perspective is vital to achieving a more thorough and complete understanding of the complex relationship between personality and religion.

However, researchers should not go as far as to assume that the social environment is alone in predicting individual psychology. As this study has shown, it is important to study the social environment in tandem with individual differences. Even though personality is a variable conceptually owned by psychologists, it is still an important predictor of religion that should be considered in future sociological and psychological studies of religion. While psychologists have underestimated the importance of the social environment in the link between personality and religion, sociologists have underestimated the importance of personality when predicting

religion. Therefore, I invite sociologists to regularly consider the implications of individual personality traits when studying the social environment broadly and religion specifically. Furthermore, I call on researchers in all disciplines to incorporate an interdisciplinary approach in future empirical research, particularly research regarding personality and religion, and consider how the influence of the social environment, a sociological perspective, can influence individual psychology and how personality, a variable conceptually owned by psychologists, can influence the social environment.

Study Limitations and Directions for Future Research

This study had several limitations. First, the sample used for this manuscript was comprised largely of white respondents (approximately 90%). Therefore, while this present study was able to build upon previous research using homogenous samples and include race as a control variable in analyses, the small number of minorities did not allow for analyses to be replicated by racial or ethnic groups. Therefore, it was not possible to examine potential differences among these groups. Future research would benefit from examining how the differences in personality predicting religion observed in this manuscript vary by racial and ethnic groups. Furthermore, unlike previous homogenous samples, this manuscript was also able to include several different religious denominations in analyses (Non-Affiliated Protestants, Other Protestants, Methodists, Lutherans, Baptists, Catholics, and those of no particular religion). However, the sample was restricted such that those who were in other, smaller religions (i.e., Buddhism or Judaism) were not included in analyses. Future research should expand upon the analyses in this manuscript and include other religious groups, such as Jewish and Hindu religions. This would allow researchers to investigate if the results found in this study are

generalizable to religions that are not mainline. Lastly, childhood religion was a variable only available at Wave I; therefore, despite theoretical evidence for it's inclusion in the model, it was only included in the lagged regression models in which childhood and adult religion at Wave I was used to predict personality at Wave II. In future research, childhood religion deserves closer attention and ought to be included in the model at all stages of analyses.

CONCLUSION

Personality is an important correlate of religion that ought to be investigated further in future research, regardless of the academic discipline in which the research is housed. The nature of such an association varies considerably based on the measure of religion used and the age of the individual. Further, the relationship between personality and religion is not as unidirectional as suggested in prior research; religion influences personality just as personality influences religion. Therefore, researchers would benefit greatly from employing a multi-disciplinary perspective when evaluating such a relationship. The study of religion is not one that can be confined to a single academic discipline; both psychological and sociological literature is important to fully explaining how and under what conditions religion impacts both individuals and the larger social environment. This study shows the importance of integrating such disciplines in order to provide a more thorough and systematic understanding of religion.

REFERENCES

Digman, John M. 1992. "Personality Structure: Emergence of the Five-Factor Model." *Annual Review of Psychology*. 41: 417-440.

D'Onofrio, Brian M., L. J. Eaves, L. Murrelle, H. H. Maes, and B. Spilka. 1999. "Understanding Biological and Social Influences on Religious Affiliation, Attitudes, and Behaviors: A Behavior Genetic Perspective." *Journal of Personality*. 67 (6): 953-984.

Durkheim, Emile. 1965 [1912]. *Elementary Forms of Religious Life*. New York: Free Press.

Eysenck, H. J. 1970. *The Structure of Human Personality*. London: Methuen. 3rd ed.

Eysenck. Michael W. 1998. "Personality and the psychology of religion." *Mental Health, Religion, and Culture*. 1(1): 11-19.

Francis, Leslie J. 1991. "Personality and attitudes towards religion among adult churchgoers in England." *Psychological Reports*. 69: 791-794.

Frances, Leslie J. 1992. "Religion, neuroticism, and psychoticism." In J. F. Schumaker (Ed.), *Religion and Mental Health* (pp. 149-160). New York: Oxford University.

Goldberg, Lewis R. 1990. "An Alternative 'Description of Personality': The Big-Five Factor Structure." *Journal of Personality and Social Psychology*. 59 (6): 1216-1229.

Goldberg, Lewis R. 1992. "The Development of Markers for the Big-Five Factor Structure." *Psychological Assessment*. 4(1): 26-42.

Goodwin, Renee D. and H. S. Friedman. 2006. "Health Status and the Five-factor Personality Traits in a Nationally Representative Sample." *Journal of Health Psychology*. 11(5): 643-654.

Henningsgaard. Jude M. and R. C. Arnau. 2008. "Relationships between religiosity, spirituality, and personality: A multivariate analysis." *Personality and Individual Differences*. 45: 703-708.

Hills, Peter, L. J. Francis, M. Argyle, and C. J. Jackson. 2004. "Primary personality trait correlates of religious practice and orientation." *Personality and Individual Differences*. 36: 61-73.

House, James S. 1977. "The Three Faces of Social Psychology." *Sociometry*. 40(2): 161-177.

Johnson, Wendy and R. F. Krueger. 2004. "Genetic and environmental structure of adjectives describing the domains of the Big Five Model of personality: A nationwide US twin study." *Journal of Research in Personality*. 38: 448-472.

Koenig, Harold G., L. K. George, and P. Titus. 2004. "Religion, Spirituality, and Health in Medically Ill Hospitalized Older Patients." *Journal of the American Geriatrics Society*. 52: 554-562.

Koenig, H. G., M. E. McCullough, and D. B. Larson. 2001. *Handbook of Religion and Health*. New York City: New York: Oxford University Press.

Kruase, Neal and E. Bastida. 2011. "Church-Based Social Relationships, Belonging, and Health Among Older Mexican Americans." *Journal for the Scientific Study of Religion*. 50(2): 397-409.

McCrae, Robert R. and P. T. Costa. 1999. A five-factor theory of personality, In L. A. Pervin & O. P. John (Eds) *Handbook of personality: Theory and research* (2nd ed, pp. 139-153). New York: Guilford Press.

McCrae, Robert R. and O. P. John. 1992. "An Introduction to the Five-Factor Model and It's Aplications." *Journal of Personality*. 60(2): 175-215.

Midlife Development in the United States (MIDUS): A National Study of Health and Well-Being. 2011. Retrieved May 19, 2011 from http://midus.wisc.edu/.

Piedmont, Ralph L. 1999. "Strategies for Using the Five-Factor Model of Personality in Religious Research." *Journal of Psychology and Theology*. 27(4): 338-350.

Roccas, Sonia, L. Sagiv, S. H. Schwartz, and A. Knafo. 2002. "The Big Five Personality Factors and Personal Values." *Personality and Social Psychology Bulletin*. 28(6): 789-801.

Saroglou, Vassilis. 2002. "Religion and the five factors of personality: a meta-analytic review." *Personality and Individual Differences*. 32: 15-25.

Saucier, Gerard and L. R. Goldberg. 1996. "Evidence for the Big Five in analyses of familiar English personality adjectives." *European Journal of Psychology*. 10: 61-77.

Taylor, Andrew and D. A. MacDonald. 1999. "Religion and the five factor model of personality: An exploratory investigation using a Canadian university sample." *Personality and Individual Differences*. 27: 1243-1259.

Unterrainer, H. F., K. H. Ladenhauf, M. L. Moazedi, S. J. Wallner-Liebmann, and A. Fink. 2010. "Dimensions of Religious/Spiritual Well-Being and their relation to Personality and Psychological Well-Being." *Personality and Individual Differences*. 49: 192-197.

Zinnbauer, Brian J., K. I. Pargament, B. Cole, M. S. Rye, E. M. Butter, T. G. Belavich, K. M. Hipp, A. B. Scott, and J. L. Kadar. 1997. "Religion and Spirituality: Unfuzzying the Fuzzy." *Journal for the Scientific Study of Religion*. 36(4): 549-564.